

# **Pinnacle Pro-ONE RTDV**

# **Pinnacle Pro-ONE**

## **USER'S GUIDE**



**Pinnacle Pro-ONE RTDV**

**Pinnacle Pro-ONE**

**User's Guide**

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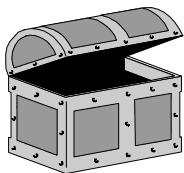
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# About the User's Guide

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This User's Guide explains how to install and use the Pinnacle **Pro-ONE** and the **Pro-ONE RTDV** hardware and software. Instead of using the complete product name, the abbreviation **Pro-ONE** is used for a better readability.

**Subheadings** In the margins are subheadings to help you quickly find your way through this manual.



Important text passages are marked with the “notepad” and this format.

Numbers mark step by step instructions:

1. Start TitleDeko RT.

Bullets mark instructions for optional steps the order of which is not important.

- Connect the board to the blackBOX.

All keyboard commands appear in this font:

**setup**

Menus, commands, options or buttons which the user can select are written in *italics*.

## NOTES

# Part I - Getting Started

Part I of this manual contains the introduction, the system requirements, the installation, the cabling and the commissioning of **Pro-ONE**.



## Welcome



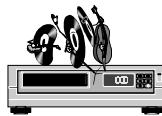
## Before you begin



## Installing Adobe Premiere



## Installing the Hardware



## Connecting the blackBOX and the Video Devices



## Installing the Software



## A Short Tour





# Chapter 1: Welcome

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## WELCOME!

Thank you very much for choosing a product from Pinnacle Systems. We are pleased to be able to offer you a particularly powerful editing system in **Pro-ONE**, which opens up a new dimension in video editing in its class.

The difference between **Pro-ONE** and **Pro-ONE RTDV** is that the **Pro-ONE RTDV** has the capability to do **RealTime-DV-out**

It is very important for us not only to achieve the best performance but also to direct the operation of the equipment towards practical requirements. To this end, we have asked professional editors from around the world for their expectations and requirements. The outcome of this is a robust and productive product for experienced editors and producers. With **Pro-ONE** we want you to be able to give your creativity free rein. Choose and combine professional effects from the extensive range of professional effects and thus create the look that gives your productions the right appearance and the required substance – leave it to **Pro-ONE** to take care of the immediate presentation in full quality.

You will be impressed by the outstanding real-time capabilities of **Pro-ONE**. Display videos on 3D objects so that you can incorporate these with dramatic effect into a scene. Theme-related effects make it easier for you to set up scenes quickly. You can even combine up to 10 effects in real time.

We recommend that you experiment first with the examples included to find out more about the performance capabilities of **Pro-ONE**.

We hope you have fun with your new editing system.

*Your Pinnacle Pro-ONE Team*

# How THIS GUIDE IS ORGANIZED

This User Guide describes the **Pro-ONE** features and explains how to use them within Adobe Premiere. For detailed information on Adobe Premiere, please refer to the Adobe Premiere User's guide.

This manual consists of the following chapters:

## Part I - Getting Started

### Overview

The chapter "Welcome" introduces the Pinnacle **Pro-ONE**, provides an overview of its capabilities along with the conventions used and organization of this User's Guide.

### System requirements

The chapter "Before You Begin" gives you all necessary information about the system requirements needed to work efficiently with **Pro-ONE**. In addition the package contents are introduced in detail.

### Installing Adobe Premiere

The chapter "Installing Adobe Premiere" tells you how to install Adobe Premiere.

### Hardware installation

The chapter "Installing the Hardware" explains the hardware installation.

### Connecting the blackBOX

The chapter "Connecting the blackBOX" shows how to connect the Pro-ONE, the blackBOX and the video devices.

### Software installation

The chapter "Installing the Software" describes the installation of the software under Windows 98 SE, Windows Me, Windows 2000 and Windows XP.

### Short Tour

The chapter "Short Tour" gives you detailed information on how to capture, edit and playback video clips to tape.

In addition, the Device control functions are described in detail.

## Part II - Creating Movies

### DVTools

The chapter "**Pro-ONE** and DVTools" introduces step by step how to capture, playback and export video clips using the DVTools.

### Pinnacle Effects

The chapter "Pinnacle Effects" introduces the Pinnacle Systems' real time transitions and filters which allow you to check the effects without having to render the clip.

## **Real time Effects**

The chapter “Pinnacle real time effects” provides an overview of the different kinds of Pinnacle real time effects and their use.

## **TitleDeko RT**

The chapter “TitleDeko RT” explains how to use the TitleDeko RT character generator to add titles, rolls and crawls, with a variety of text effects.

## **Hollywood FX RT**

The chapter “Hollywood FX RT” describes how to generate 3D transitions and realtime effects for your projects.

## **Alpha Magic FX**

The chapter “Alpha Magic FX” introduces Alpha Magic FX, a collection of more than 300 top-quality transitions and dynamic effects.

## **Export**

The chapter “Exporting the Projects” explains the settings for an export of your project.

## **Part III - Tools, Tips & Utilities**

### **Pinnacle Presets**

The chapter “Pinnacle Presets” gives you information about the Pinnacle presets included with **Pro-ONE** which contain settings that guarantee an optimal operation of **Pro-ONE** and Adobe Premiere.

### **Pro-ONE Control**

The chapter “**Pro-ONE** Control” describes all features of the Control, which allows you to specify individual settings.

### **Instant Video RT**

The chapter “Instant Video RT” gives you information about how to minimize the rendering time under Adobe Premiere considerably.

### **Editing Widescreen Movies**

The chapter “Editing Widescreen Movies” describes how to capture, edit and playback widescreen movies.

## **Part IV - Appendix**

### **Appendix**

The “Appendix” contains, the technical data, a troubleshooting guide, a detailed multimedia glossary, the license agreement, and the declaration of conformity.

### **Index**

An index concludes this User’s Guide.



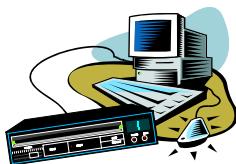
# Chapter 2: Before You Begin

This chapter recommends computer system components that are required for the operation of the **Pro-ONE** and lists the items included with the **Pro-ONE**.



For changes or supplements that could not be included in the printed documentation, please, refer to the ReadMe file on the CD-ROM supplied with your system!

## SYSTEM REQUIREMENTS



Please make sure your system meets the following requirements before installing the **Pro-ONE**:

### PC System

- ♦ Processor: 733 MHz, Pentium III, Athlon or better
- ♦ 1 x 32-bit PCI 2.1 slot
- ♦ *Windows 98 SE / Windows Me*  
256 MByte RAM (or more)
- ♦ *Windows 2000 / Windows XP*  
256 MByte RAM (recommended 512)
- ♦ 500 MByte hard disk capacity for system files and programs, e.g. Adobe Premiere
- ♦ UDMA100 or better, 20 GByte hard disk capacity for capture / playback of video, able to sustain at least a minimum of a 15 MBytes/sec transfer rate.
- ♦ DMA data transfer



You should absolutely install a DMA busmaster driver to ensure the smooth function of your PRO-ONE board. You will find this driver on the CD-ROM supplied with your motherboard, in the internet, or contact your dealer.

- ♦ Graphics board with 1024 x 786 x 16 bpp with DirectDraw drivers, OpenGL compatible
- ♦ DirectX 8.0 or higher
- ♦ CD-ROM drive
- ♦ 48 kHz compatible sound board.

## Software

- Windows 98 SE, Windows Me, Windows 2000, Windows XP.

## PACKAGE CONTENTS

Please make sure your **Pro-ONE** system is complete before you begin the installation. The system includes :



**Pro-ONE** board\*\*



blackBOX



IEEE-1394 cable



Audio cable



CD-ROM with:

- **Pro-ONE** drivers
- Adobe Premiere plug-ins
- Adobe Premiere presets
- Sample project
- Instant Video RT
- Pinnacle RT Effects engine
- Hollywood FX RT
- Alpha Magic FX
- Alpha Magic Quick Reference



CD-ROM with Adobe Premiere

\* Depending on the delivery scope, the package contents may vary from the contents listed in this manual.  
\*\* For model and serial number of your board, refer to the label on the board.

- TitleDeko RT
- Pinnacle PCI Performance Enhancer (PPE)
- Online documentation
- Service and support information
- ReadMe and online help files



CD-ROM with  
Pinnacle Impression DVD SE



This manual

If any parts are missing, please contact your retailer.



Computer components are sensitive to electrostatic charge. Do not take the **Pro-ONE** board out of its antistatic package until you install it.

## Related Information

Refer to Pinnacle at <http://www.pinnaclesys.com/support> for the latest information on configurations and software updates.

Refer to Microsoft Windows documentation, online help and Microsoft Website for information on the Windows operating system.

Refer to Adobe [www.adobe.com](http://www.adobe.com) for the latest information on Adobe Premiere.



# Chapter 3: Installing Adobe Premiere

The following chapter describes the procedure to install Adobe Premiere.



You must install Adobe Premiere **before** installing the **Pro-ONE** board in your computer, because the **Pro-ONE** presets must be copied to the appropriate Adobe Premiere folder during the installation of the **Pro-ONE** software.

Proceed as follows to install Adobe Premiere:

1. Place the Adobe Premiere CD-ROM in your CD-ROM drive.
2. If the installation program does not start automatically, select *Run...* from the *Start* menu.
3. Depending on your drive, enter, for example:  
**e:\premiere\setup.**  
If your CD-ROM drive has a different drive designation, change the path accordingly.  
—or—  
Click on *Browse...*, switch to your CD-ROM drive and to the directory mentioned above and double-click the **setup.exe** file.
4. Click *OK*.
5. Follow the program installation instructions on the screen.
6. Install the Adobe Premiere Update.

**After** you have installed Adobe Premiere on your computer, you can install the **Pro-ONE** board and software.



If you ever need to reinstall Adobe Premiere, please remember to run the **Pro-ONE** setup program again, selecting at a minimum the Presets and PlugIns. **Pro-ONE** will not work correctly with Adobe Premiere if these components are missing.



# Chapter 4: Installing the Hardware

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## DEFRAGMENTING THE HARD DISK

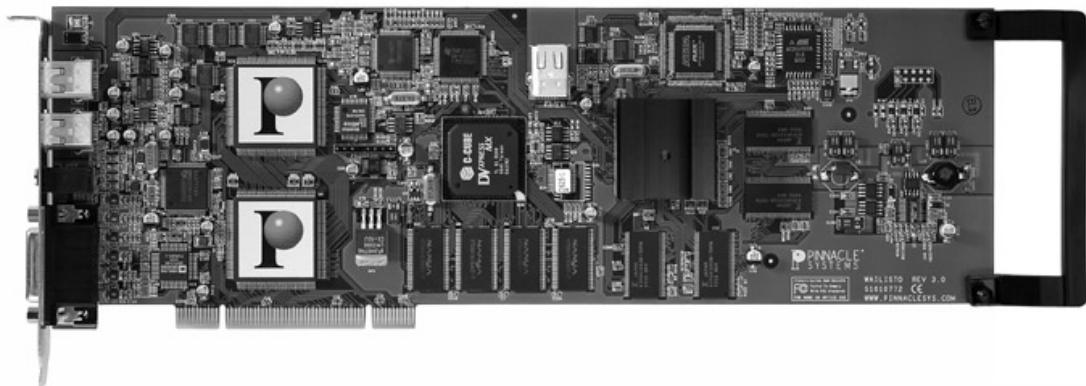


Before installing and configuring the **Pro-ONE** you should defragment your hard disk/s. Please use your Windows System tools for this. Under Windows 98 SE / Me you find the defragmenter tool via *Programs, Accessories, System Tools, Disk Defragmenter*.

If you use Windows 2000 / XP, please proceed as follows: Click on *My Computer*, then click right on the disk to be defragmented, then choose *Properties, Tools*, and under *Defragmentation* click on the button *Defragment Now... .*

## INSTALLING THE PRO-ONE

The following chapter explains how to install the **Pro-ONE** into your computer.



In the interest of your own safety and the flawless functioning of your new product and computer system please note the following:

- ♦ Computer components are sensitive to static charge. Divert any electrostatic charge from your person before touching the components with your hands or any tools.
- ♦ Before opening the computer make sure that the power plug is disconnected from the wall outlet.

## Inserting Pro-ONE



To insert the **Pro-ONE** into your computer, proceed as follows:

### 1. Discharge yourself.

Discharge yourself by touching the metal case of your computer.

### 2. Switch off the computer, disconnect the cables.

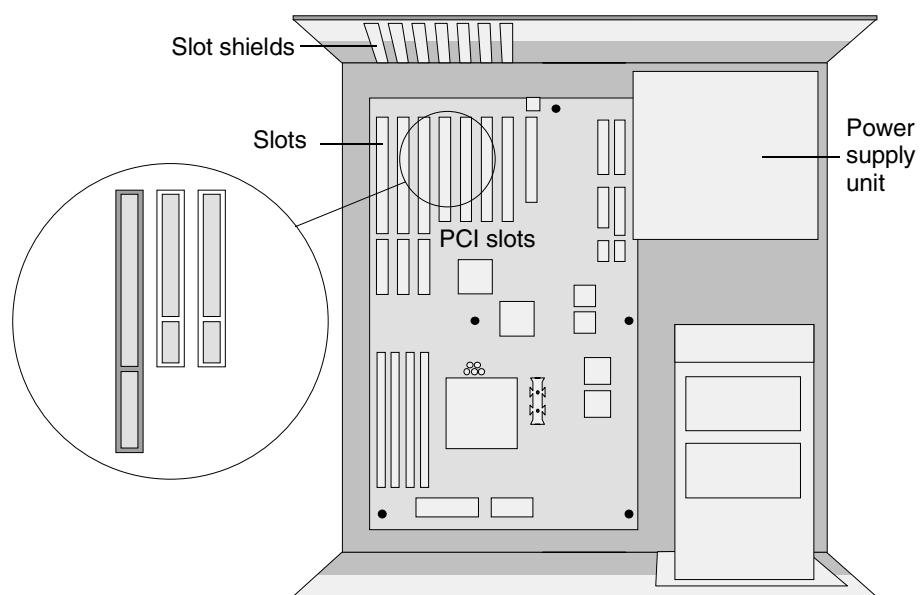
Switch off the computer and all peripheral devices. Pull out the power cord and disconnect all necessary cables.

### 3. Remove the cover.

Loosen the screws of the computer's cover and remove the cover.

### 4. Select a PCI slot.

Select a free (busmaster) PCI slot for the **Pro-ONE** board.

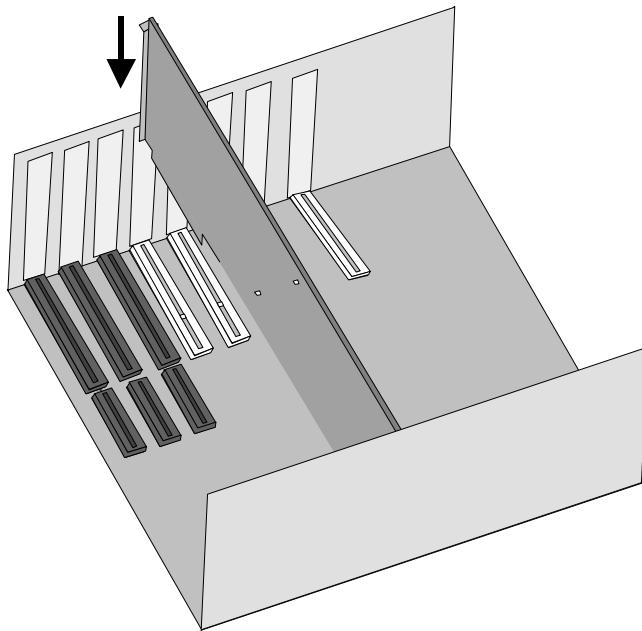


### 5. Remove the slot bracket.

Remove the slot bracket at the back of the computer. If necessary, remove the screw at the cover.

### 6. Insert the board.

Insert the board carefully in the selected slot. Hold the board at the top edge and push both ends simultaneously into the slot. Press the board's top edge to make sure that the board is firmly seated in the slot. If your computer has an additional retainer opposite the slot, slide the board into this retainer as well so as to ensure better stability.



If the board cannot be inserted without problems, do not force the board into place. The contacts at the connector could bend. Instead, pull the board out carefully and try again.

### **7. Screw in the slot bracket.**

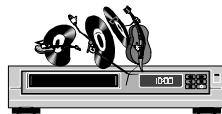
Screw the slot bracket tight.

### **8. Reconnect the cables.**

Reassemble the computer's casing. Reconnect the cables.

The **Pro-ONE** hardware installation is completed.

In the next step, you can connect the breakout box and the video devices as is described in the following chapter and install the software as described in the chapter „Installing the Software“.

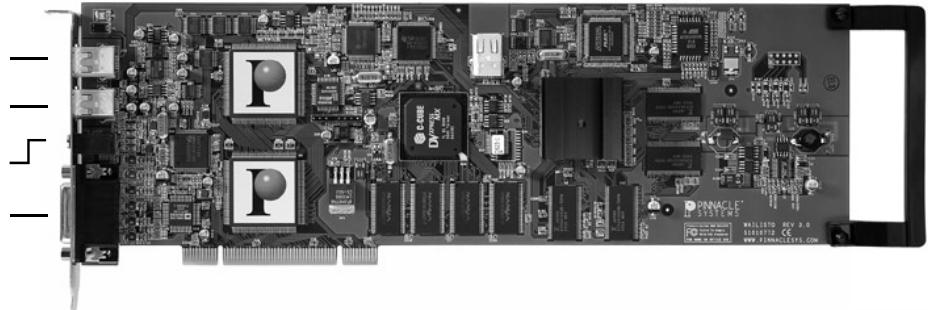


# Chapter 5: Connecting blackBOX and Video Devices

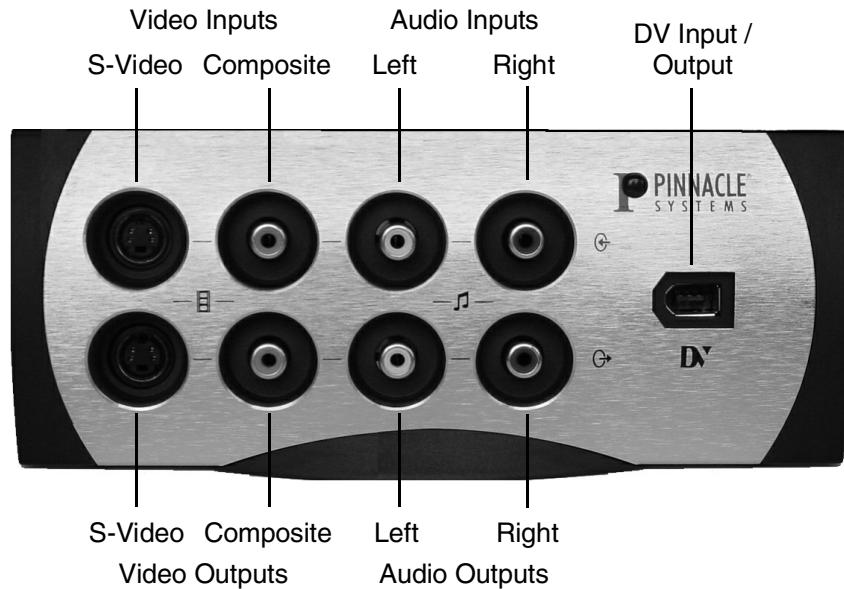
The following chapter tells you how to connect your video devices to the **Pro-ONE** via the blackBOX, **with the computer turned off**. To do so you will need the appropriate cables.

The following illustration shows the **Pro-ONE** board with its connections:

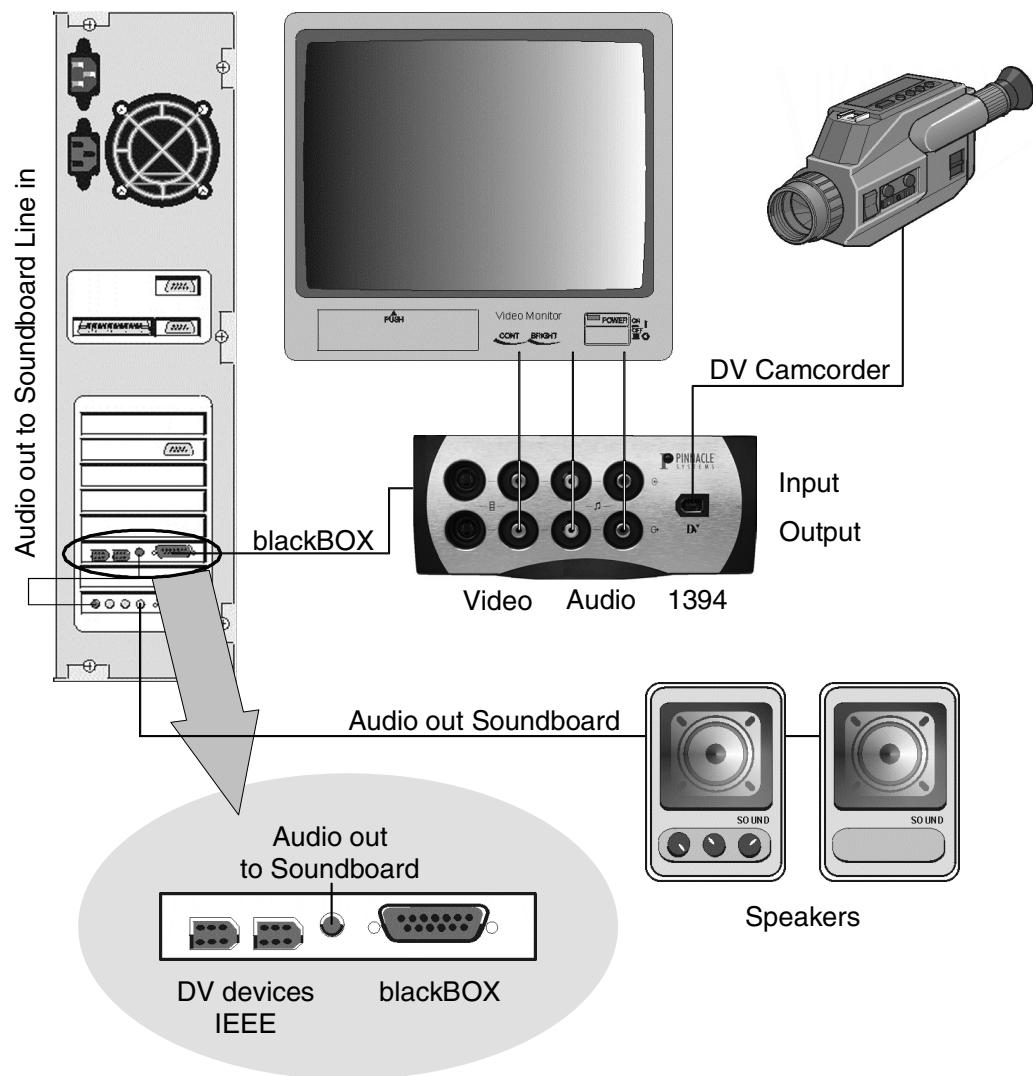
- Connects to DV devices (1394 connector)
- Connects to DV devices (1394 connector)
- Audio connector
- Connects to the blueBOX (26-pin D-type)



The following illustration shows the connections of the blackBOX:



## HOW TO CONNECT AUDIO AND VIDEO DEVICES



## CONNECTING THE BLACKBOX

Via the blackBOX you can connect your analog video devices or an external monitor to your **Pro-ONE** board. Connect the blackBOX to the **Pro-ONE** board directly via the cable of the blackBOX.

blackBOX Out	Pro-ONE IN
blackBOX Cable	➤ 26-pin D-type Connector
blackBOX Cable (DV)	➤ Input / Output DV

## CONNECTING THE AUDIO LOOPTHROUGH

For audio monitoring using your PC speakers, connect the Audio Output on the back of the **Pro-ONE** board to the Audio Line-IN of your sound board using the Audio cable included in the package.



Make sure to enable or un-mute the Line-In on the sound board to monitor the Pro-ONE's audio on the PC speakers. Do this via the audio mixer or the software included with the sound board.

## CONNECTING THE VIDEO DEVICES

In the following, the options for cabling your video source—referred to as the *player*—are described. The player provides the video and audio signals that you want to digitize (“capture”) to your hard disk and then edit on your PC.

Subsequently, connections to the *recorder* are explained. The recorder is the device—typically a VCR—that you would like to output your final production to.

### Player: DV device

Devices that connect to the board include any DV or Digital 8 format video camcorder or recorder that has an IEEE-1394/DV connector. On many devices, this connector is labeled “i.Link”.

To connect your DV camcorder/VCR to the **Pro-ONE**, use the IEEE-1394 DV cable included in the package.



**1. Connect the IEEE-1394 cable to the Pinnacle **Pro-ONE**.**

Connect the 6-pin connector of the IEEE 1394 DV cable to one of the 1394 data ports of your **Pro-ONE**.

**2. Connect the IEEE-1394 cable to the DV device.**

Connect the 4-pin connector of the IEEE 1394 AV cable to the DV IN/OUT or the DV OUT connector of your DV camcorder/VCR.



Video and audio signals are transferred via the IEEE-1394 cable so no other connection is required to connect your DV device as a player.

## **Player: S-Video device / Composite video device**

**S-Video** Choose this type of connection if your player has an S-Video output.

The following table gives an overview of the connections:

<b>Player Out</b>	<b>blackBOX In</b>
S-Video Output	➤ S-Video Input
Audio Output L	➤ Audio Input L
Audio Output R	➤ Audio Input R

**Composite video** Choose this type of connection if your player has a Composite video output.  
The following table gives an overview of the connections:

Player Out	blackBOX In
Composite Video Output	➤ Composite Video Input
Audio Output L	➤ Audio Input L
Audio Output R	➤ Audio Input R

If your player is equipped with S-Video outputs as well as with Composite video outputs, please choose S-Video, as this will provide the highest level of video quality.

If your player has a SCART connector, you will need an appropriate adapter. This adapter is available wherever video recorders are being sold.

## Recorder: DV device



### *PAL device:*

Many PAL devices sold in Europe usually have only a DV **output**. These can be identified by the label DV OUT (and not DV IN/OUT) on the DV connector. Such devices do **not** support recording of DV data back to videotape. Note that with Pinnacle **Pro-ONE**, you can of course use the analog outputs to play your finished DV project to an analog VCR.

Devices that connect to the board include any DV or Digital 8 format video equipment that has an IEEE-1394/DV connector. On many devices, this connector is labeled “i.LINK”.

If you have not already done so, connect your DV camcorder/VCR to the **Pro-ONE**. Use the IEEE-1394 AV cable included in the package.



### 1. Connect the IEEE-1394 cable to the **Pro-ONE**.

Connect the 6-pin connector of the IEEE-1394 DV cable to one of the 1394 data ports of your **Pro-ONE**.

## 2. Connect the IEEE-1394 cable to the DV device.

Connect the 4-pin connector of the IEEE-1394 AV cable to the DV IN/OUT connector of your DV camcorder/VCR.



**Pro-ONE** can output either to DV or to analog, but not both at the same time. You can select the active output later in Adobe Premiere by right-clicking on the Instant Video RT window and selecting *Settings* in the menu that appears.

## Recorder: S-Video device / Composite video device

**S-Video** Choose this type of connection if your recorder has an S-Video input.

The following table gives an overview of the connections:

blackBOX Out	Recorder In
S-Video Output	➤ S-Video Input
Audio Output L	➤ Audio Input L
Audio Output R	➤ Audio Input R

**Composite Video** Choose this type of connection if your recorder has a Composite input.

The following table gives an overview of the connections:

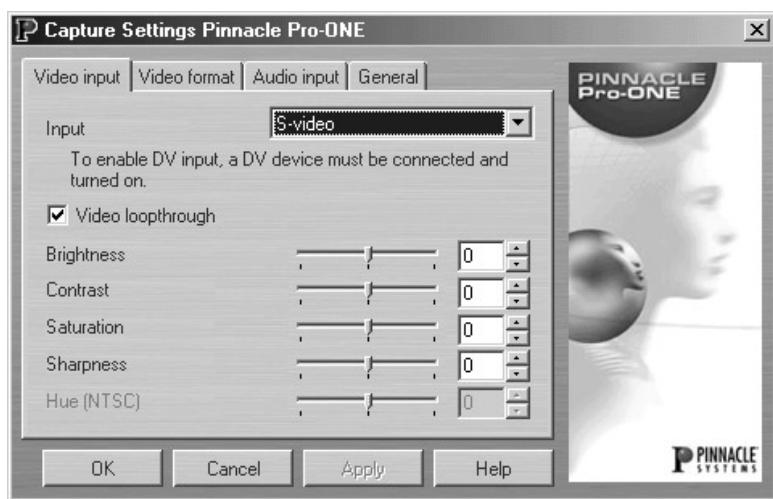
blackBOX Out	Recorder In
Composite Video Output	➤ Composite Video Input
Audio Output L	➤ Audio Input L
Audio Output R	➤ Audio Input R

If your player is equipped with S-Video outputs as well as with Composite video outputs, please choose S-Video, as this will provide the highest level of video quality.

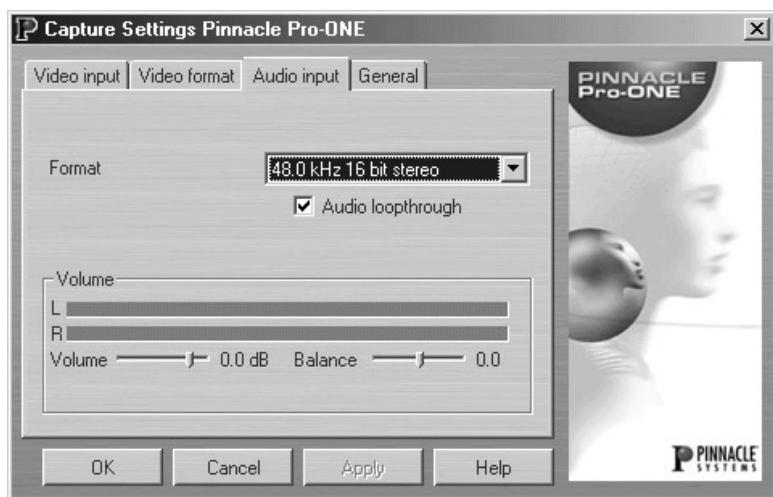
If your player has a SCART connector, you will need an appropriate adapter. This adapter is available wherever video recorders are being sold.

## PLAYER AND RECORDER IN ONE DEVICE

Up to now, player and recorder have been treated as two separate devices. When editing video with **Pro-ONE**, it is also possible to combine both functions in one single video device. In this case, connect the device to the blackBOX as a player *and* as a recorder, as described above. In order to avoid video signal feedback, you should deactivate the option *Video loopthrough* in the **Pro-ONE** Control software.



Similarly, in order to avoid audio signal feedback, you should deactivate the option *Audio loopthrough* in the **Pro-ONE** Control software.



# CONNECTING THE VIDEO MONITOR AND LOUDSPEAKERS

In order to check the image and the sound quality during capture, editing and output, we recommend that you connect a video monitor or TV set, either with integrated or separate loudspeakers. There are two possibilities:

- ♦ The monitor can be connected to a free S-Video or Composite Video and audio output of the blackBOX. If necessary, use an appropriate adapter.
- ♦ Connect the monitor to the video and audio outputs of your recorder. In this case the output signal of **Pro-ONE** is transmitted to the input of the recorder, through the recorder and on to the monitor.

## Audio connection

- ♦ To monitor audio it is just fine to connect the audio out of the **Pro-ONE** with your sound card and use the computer loudspeakers.
- ♦ In order to achieve the best quality when you master to tape use the audio output of the blueBox and connect it to your recorder when outputting analog either S-Video or Composite.



If outputting IEEE-1394, Audio will be transmitted along with the Video on the IEEE-1394 cable and no additional connections need to be made.



# Chapter 6: Installing the Software

After you have installed the **Pro-ONE** board in your computer, you can install the **Pro-ONE** drivers and software.



Make sure that you have installed Adobe Premiere **before** you install the **Pro-ONE** software.

The installation steps for Windows 98 SE / Me, and Windows 2000 / XP are slightly different. Please refer to the corresponding sections:

- ♦ Installing the Software for Windows 98 SE as of page 20,
- ♦ Installing the Software for Windows Me as of page 22.
- ♦ Installing the Software for Windows 2000 / Windows XP as of page 24.

During the installation the following items are copied to / installed on your hard disk:

- ♦ **Pro-ONE** software
  - **Pro-ONE** drivers
  - Instant Video RT
  - Pinnacle Real-time effects
  - DVExpert
  - PPE performance tool
- ♦ DVTools
- ♦ Presets / Plugins for Adobe Premiere
- ♦ Hollywood FX RT
- ♦ TitleDeko RT title generator
- ♦ Alpha Magic Wipes
- ♦ Online manual
- ♦ Up-to-date ReadMe and Help files



The Pinnacle **Pro-ONE** program group is created.

# INSTALLING THE SOFTWARE FOR WINDOWS 98 SE

Depending upon the system configuration you may be asked to re-start your computer during the installation. If this is the case, re-start your computer by clicking on the *Yes* button..

Important: During the software installation you will install the IEEE1394 driver. For this installation you need the “base5.cab” file on Windows 98 SE installation CD-ROM.

To install the software for Windows 98 SE, proceed as follows:

**1. Switch on computer.**

Switch on your computer. Windows is started automatically.

If your computer is configured in such a way, that Windows is not started automatically, start Windows now.

**VGA** After Windows starts, a new hardware (the “Standard PCI Graphics Adapter (VGA)”) is found.

The *Add New Hardware Wizard* dialog appears.

**2. Click *Next*.**

Click on the *Next* button.

**3. Click *Next*.**

In the next window click on the *Next* button.

**4. Select *CD-ROM drive*, insert the installation CD, click *Next*, click *Next*.**

Now specify the folder in which Windows should search for the device drivers. Activate the check box CD-ROM drive, make sure all other check boxes are deactivated and insert the **Pro-ONE** CD in your CD-ROM drive, click the *Next* button.

The Pinnacle Pro-ONE D3D driver will be found. Click on *Next*.

**5. Follow the instructions.**

Follow the instructions of the Windows installation program.

**Pro-ONE Overlay** A “PCI Multimedia Device” (the “Pinnacle Pro-ONE Overlay”) is found as a new hardware component. The software for the new component will be installed.

**Pro-ONE E4** The “Pinnacle Pro-ONE E4” is found as a new hardware component. The driver is installed automatically.

**IEEE 1394** The “Texas Instruments PCI OHCI Compliant IEEE 1394 Host Controller” will be found.

**6. Click *Next*.**

Click on the *Next* button.

**7. Click *Next, Next*.**

Click on the *Next* button. Click *Next* again.

**8. Follow the instructions.**

Follow the instructions of the Windows installation program.

Depending on your system, you may now be prompted for a restart. If this is the case, confirm with *Yes*. The installation will continue automatically after the restart.

Following, the Pinnacle software installation program starts.

Note: If the Setup program is not started automatically, please proceed as follows: If necessary, insert the **Pro-ONE** installation CD-ROM into the CD-ROM drive, double click on the *My Computer* icon on the Windows desktop and change to the CD-ROM drive. The file **autorun.exe** will be detected. Open this file.

—Or—

Select the *Run...* command in the *Start* menu and enter **e:\autorun**, where **e:\** represents the driver letter for your CD-ROM drive. If necessary, enter another letter. Click on *OK*.

## **The Setup program**

The Setup program is started in the language determined by the Regional Settings (*Start* menu, *Settings*, *Control Panel*, *Regional Settings*) of the installed Windows version: German, English, or French.

If other Regional Settings than German, English or French are activated on your computer, you need to select the language in which the installation should be carried out.

**9. If necessary, select language, click *Next*.**

If necessary, select the language in which the installation should be carried out.

Click on the *Next* button.

**10. Follow the instructions.**

Follow the instructions of the setup program.

Please now continue with “Additional information for the Setup Program” section on page 26 in this chapter.

## INSTALLING THE SOFTWARE FOR WINDOWS ME

Depending upon the system configuration you may be asked to re-start your computer during the installation. If this is the case, re-start your computer by clicking on the *Yes* button.

To install the software for Windows Me, proceed as follows:

### 1. Switch on computer.

Switch on your computer. Windows is started automatically.

If your computer is configured in such a way, that Windows is not started automatically, start Windows now.

**IEEE 1394** The “Texas Instruments PCI OHCI Compliant IEEE 1394 Host Controller” will be found. The *Found New Hardware Wizard* dialog appears.

### 2. Insert Install CD and click Next.

Insert the **Pro-ONE** CD in your CD-ROM drive, and click the *Next* button.

### 3. Click Next.

Click on the *Next* button.

### 4. Follow the instructions.

Follow the instructions of the Windows installation program.

Depending on your system, you may now be prompted for a restart. If this is the case, confirm with *Yes*. The installation will continue automatically after the restart.

**VGA** The “Standard PCI Graphics Adapter (VGA)” is found.

### 5. Click Next.

Click on the *Next* button. The “Pinnacle Pro-ONE D3D” driver will be installed.

### 6. Follow the instructions.

Follow the instructions of the Windows installation program.

**Pro-ONE Overlay** A “PCI Multimedia Device” (the “Pinnacle Pro-ONE Overlay”) is found as a new hardware component. The software for the new component will be installed.

**Pro-ONE E4** The “Pinnacle Pro-ONE E4” is found as a new hardware component. The driver is installed automatically.

Depending on your system, you may now be prompted for a restart. If this is the case, confirm with *Yes*. The installation will continue automatically after the restart.

The Pinnacle software installation program starts.

Note: If the Setup program is not started automatically, please proceed as follows: Double click on the *My Computer* icon on the Windows desktop and change to the CD-ROM drive. The file **autorun.exe** will be detected. Open this file.

—Or—

Select the *Run...* command in the *Start* menu and enter **e:\autorun**, where e:\ represents the driver letter for your CD-ROM drive. If necessary, enter another letter. Click on *OK*.

## **The Setup program**

The Setup program is started in the language determined by the Regional Settings (*Start* menu, *Settings*, *Control Panel*, *Regional Settings*) of the installed Windows version: German, English, or French.

If other Regional Settings than German, English or French are activated on your computer, you need to select the language in which the installation should be carried out.

### **7. If necessary, select language, click *Next*.**

If necessary, select the language in which the installation should be carried out.

Click on the *Next* button.

### **8. Follow the instructions.**

Follow the instructions of the setup program.

For more information concerning the Pinnacle setup program read in the “Additional information for the Setup Program” section as of page 26 in this chapter.

# INSTALLING THE SOFTWARE FOR WINDOWS 2000 / XP

Depending upon the system configuration you may be asked to re-start your computer during the installation. If this is the case, re-start your computer by clicking on the *Yes* button.

To install the software for Windows 2000 / Windows XP, proceed as follows:

**1. Switch on computer.**

Switch on your computer. Windows is started automatically.

If your computer is configured in such a way, that Windows is not started automatically, start Windows now.



Important for Windows 2000 / Windows XP: Log in with administrator rights.

**IEEE 1394** After the start of Windows the “Texas Instruments PCI OHCI Compliant IEEE 1394 Host Controller” is installed automatically.

**VGA** The “Video Controller (VGA Compatible)” is found.

The *Found New Hardware Wizard* appears.

**2. Click *Next*.**

Click on the *Next* button.

**3. Click *Next*.**

In the next window click on the *Next* button.

**4. Select *CD-ROM drives*, insert the installation CD, click *Next*.**

Now specify the folder in which Windows should search for the device drivers. Activate the check box *CD-ROM drives*, make sure all other check boxes are deactivated and insert the **Pro-ONE** CD in your CD-ROM drive, click the *Next* button.

The Pinnacle driver is found. Click on *Next*.

**5. Click *Yes*.**

Confirm the *Digital Signature* window with *Yes*.

**6. Follow the instructions.**

Follow the instructions of the Windows installation program.

**Pro-ONE Overlay** A “Multimedia Controller” (the “Pinnacle Pro-ONE Overlay”) is found as a new hardware component.

**7. Click Next.**

Click on the *Next* button.

**8. Click Next, Next.**

Click on the *Next* button. Click on *Next* again.

**9. Click Yes.**

Confirm the *Digital Signature* window with *Yes*.

**10. Follow the instructions.**

Follow the instructions of the Windows installation program.

**Pro-ONE E4** The “Pinnacle Pro-ONE E4” is found as a new hardware component.

**11. Click Yes.**

Confirm the *Digital Signature* window with *Yes*.

The driver is installed.

**12. Follow the instructions.**

Follow the instructions of the Windows installation program.

Depending on your system, you may now be prompted for a restart. If this is the case, confirm with *Yes*.

**Note:** Under Windows 2000 / Windows XP the Pinnacle setup program is not started automatically. To start the setup program, please proceed as follows: Double click on the *My Computer* icon on the Windows desktop and change to the CD-ROM drive. The file autorun.exe will be detected. Open this file.

—Or—

Select the *Run...* command in the *Start* menu and enter **e:\autorun**, where **e:\** represents the driver letter for your CD-ROM drive. If necessary, enter another letter. Click on *OK*.

The “Pinnacle Pro-ONE 1394” driver, which is effective following a restart, is entered during the setup program.

## The setup program

The setup program is started in the language determined by the Regional Settings (*Start menu, Settings, Control Panel, Regional Settings*) of the installed Windows version: German, English, or French.

If other Regional Settings than German, English or French are activated on your computer, you need to select the language in which the installation should be carried out.

### 13. If necessary, select language, click *Next*.

If necessary, select the language in which the installation should be carried out.

Click on the *Next* button.

### 14. Follow the instructions.

Follow the instructions of the installation program.

For more information concerning the Pinnacle setup program read in the “Additional information for the Setup Program” section as of page 26 in this chapter.

# ADDITIONAL INFORMATION FOR THE SETUP PROGRAM

## Selecting Setup Type

In the *Setup Type* window, Pinnacle Systems recommends to select the *Typical* option.

- ♦ *Typical*  
Installs all components and uses the default settings.
- ♦ *Compact*  
Skips some components (e.g. online manual) and uses the default settings.
- ♦ *Custom*  
Lets you select the components and allows to adjust the settings individually.

## Selecting hard disk

If you wish to copy the files to another hard disk / another folder, click on the *Browse...* button in the *Setup Type* window and define the hard disk / the folder. Click on the *Next* button to proceed the installation.



The driver software should be installed on the system hard disk and not on the hard disk for the video files!

## Selecting components

If you have chosen Custom as setup type you can directly choose those components in the dialog box *Select Components*, which you want to install.

- ♦ *Pinnacle Pro-ONE software*

The option **Pro-ONE** software includes the drivers for **Pro-ONE**, which must be installed in order to use the functions of **Pro-ONE**.

- ♦ *System software*

The System software includes DirectX and DirectMedia. If you have received the note at the beginning of the installation that there is no DirectX or an older version installed on your system, you should install the system software.

- ♦ *Adobe Premiere AddOns*

- ♦ Plug-ins for Adobe Premiere. Contains plug-ins for capture, device control and playback for best performance under Adobe Premiere. In addition the **Pro-ONE** real time effects are installed.
- ♦ TitleDeko RT. A character generator for producing high quality titles.
- ♦ Alpha Magic FX. A collection of bitmaps that can be used with the Pro-ONE's gradient wipe realtime transition plug-in.
- ♦ Presets for Adobe Premiere which have been developed specifically for the **Pro-ONE** board and the PAL and NTSC standard. These presets are required for working with Adobe Premiere.
- ♦ Hollywood FX RT. A collection of high quality 3D effects. The application Hollywood FX RT gets automatically installed during the **Pro-ONE** driver install.

- ♦ *Documentation*

The User's Guide is also available in PDF format and can be opened with the Acrobat Reader. If no Acrobat Reader or an older version has been installed on your computer you can install the current version. In addition, you can install a sample project file which will be copied into the "...\\Program Files\\Pinnacle\\Pro-One\\SampleProject" folder. If you wish to use this Sample Project, copy the folder to the capture / playback hard disk before opening the project in Adobe Premiere.

- ♦ *DVTools*

DVTools let you scan for clips on your DV tape, add in and out points, control your DV devices, transfer DV to your hard disk and back to DV tape.

After having selected the components you want to install, click *Next*.

# AFTER THE INSTALLATION

To make sure that all **Pro-ONE** components are installed correctly, you can open the Device Manager to check this.

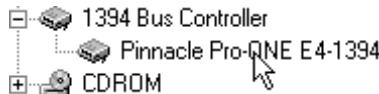
## Windows 98 SE / Me

Do this by clicking on the Windows *Start* button and selecting *Settings* and *Control Panel*. In the window that opens, double-click on the icon labeled *System*. Now select the *Device Manager* tab. A list of all hardware devices in your system appears.

If there are any conflicts indicated by yellow exclamation marks , you should try to resolve the conflicts, before working with your system.

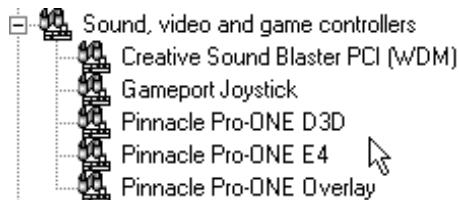
### 1394 Bus Controller

- Click on the  left to “1394 Bus Controller”. You should find the *Pinnacle Pro-ONE-1394* entry.



### Sound, video and game controllers

- To check if the Pinnacle Pro-ONE D3D, the Pinnacle Pro-ONE E4, and the Pinnacle Pro-ONE Overlay are installed correctly, click on the  left to “Sound, video and game controllers”. You should find the respective entries.



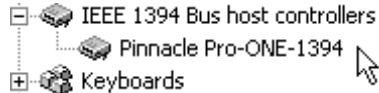
## Windows 2000 / XP

Do this by clicking on the Windows *Start* button and selecting *Settings* and *Control Panel*. In the window that opens, double-click on the icon labeled *System*. Now select the *Hardware* tab and the *Device Manager* button. A list of all hardware devices in your system appears.

If there are any conflicts indicated by yellow exclamation marks , you should try to resolve the conflicts, before working with your system.

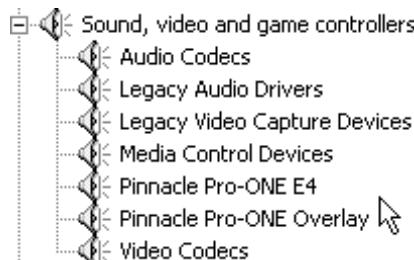
## 1394 Bus Controller

- Click on the  left to “IEEE 1394 Bus host controllers”. You should find the *Pinnacle Pro-ONE-1394* entry.



## Sound, video and game controllers

- To check if the Pinnacle Pro-ONE E4, and the Pinnacle Pro-ONE Overlay are installed correctly, click on the  left to “Sound, video and game controllers”. You should find the respective entries.



## VGA

- Click on the  left to “Display adapters”. You should find the *Pinnacle Pro-ONE-(3D Renderer)* entry.



## One or more device/s is/are not installed correctly

In this case, it could help to run the **Pro-ONE** Setup program again.

- Insert the installation CD into the CD-ROM drive.

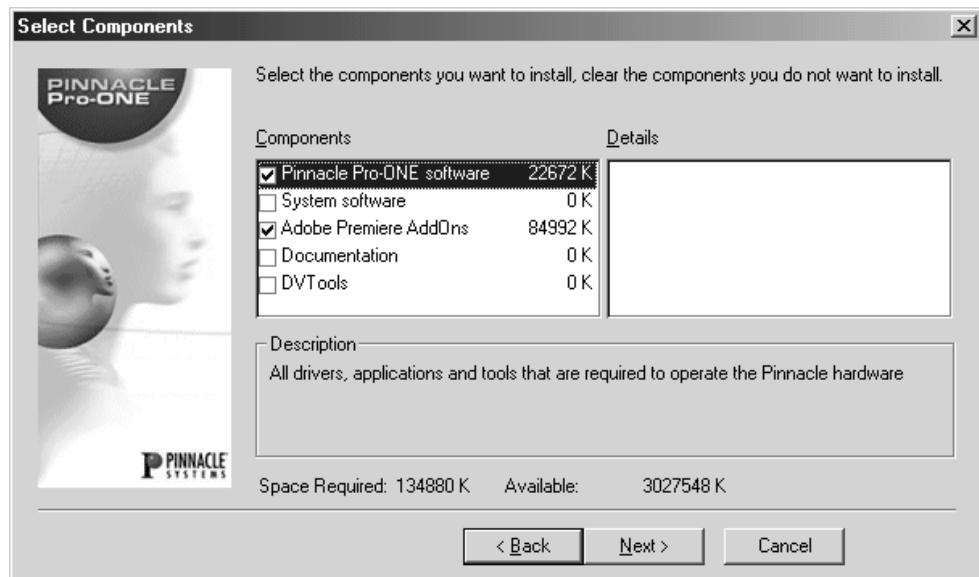
The Setup program will start automatically.

Note: If the Setup program is not started automatically, please proceed as follows: Double click on the *My Computer* icon on the Windows desktop and change to the CD-ROM drive. The file **autorun.exe** will be detected. Open this file.

—Or—

Select the *Run...* command in the *Start* menu and enter **e:\autorun**, where **e:\** represents the driver letter for your CD-ROM drive. If necessary, enter another letter. Click on *OK*.

2. Click on *No* when you are asked whether you want to de-install the already installed software.
3. In the *Setup Type* window select the *Custom* option and click on the *Next* button.
4. In the *Select Components* window choose the *Pinnacle Pro-ONE software* option and then click *Next*.



5. Follow the instructions of the setup program.

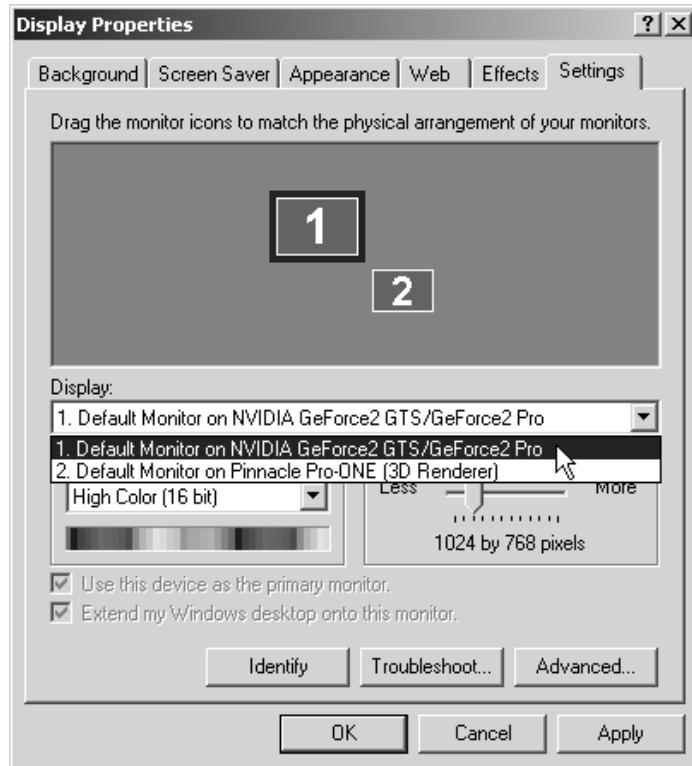
After the reboot all components should be installed correctly.

## PRO-ONE AND THE SETTINGS TAB

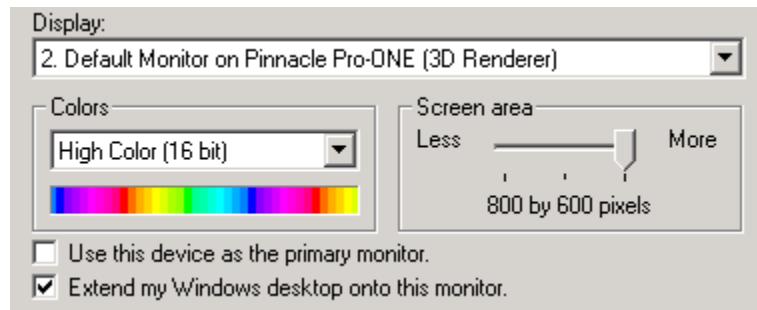
**Note:** This paragraph exclusively refers to the installation under Windows 2000 and Windows XP!

When you have completed the **Pro-ONE** installation, on the *Settings* tab (right mouse click on the desktop, *Properties* command and *Settings* tab) you will find two entries under *Display*:

- ♦ Default Monitor on NVIDIA GeForce2 GTS/GeForce2 Pro (example)
- ♦ Default Monitor on Pinnacle Pro-ONE (3D Renderer)



In order to play all Pinnacle effects in real time, the Pinnacle Pro-ONE (3D Renderer) has to be registered as Desktop extension. To check this, select the *Default Monitor on Pinnacle Pro-ONE (3D Renderer)*. Make sure that the *Extend my Windows desktop onto this monitor* check box is active.

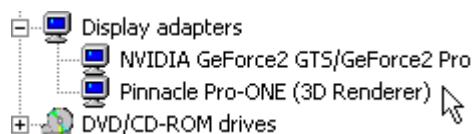


**Important:** Under no circumstances should you activate the *Use this device as the primary monitor* option. Always use your graphics board as primary monitor, never the Pinnacle Pro-ONE (3D Renderer).

## For all cases ...

If you should inadvertently use Pinnacle pro ONE (3D Renderer) as primary monitor (cursor and desktop symbols are invisible), you can correct this as follows:

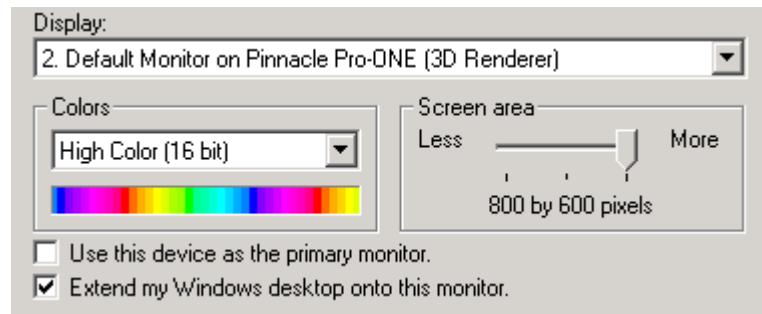
1. Restart your computer.
1. To open the *Windows Advanced Options Menu* window, please press the <F8> several time during the start up of your computer.
2. Use the arrow keys to choose the *Enable VGA Mode* option and press the <Enter> key.
3. In the *Please select the operating system to start* window press the <Enter> key again.
- Windows is started in the VGA mode.
4. Now, please delete the “Pinnacle Pro-ONE (3D Renderer)” entry in the Device Manager. Do this by clicking on the Windows Start button and selecting *Settings* and *Control Panel*. In the window that opens, double-click on the icon labeled *System*. Now select the *Hardware* tab and the *Device Manager* button.
5. Click on the **+** left to „Display adapters“. You should find the „Pinnacle Pro-ONE (3D Renderer)“ entry.



6. Select the „Pinnacle Pro-ONE (3D Renderer)“ entry and click on the *Action Menu* and the command *Uninstall*.
7. Close the *Confirm Device Removal* window with *OK*.
8. You will be asked to re-start your computer, click on the *Yes* button.

After the Re-start of Windows the “Pinnacle Pro-ONE (3D Renderer)” is found as a new hardware component.

9. Confirm the *Digital Signature* window with *Yes*.
10. Click right on the desktop and select the *Properties* command.
11. In the *Settings* tab make sure that your **graphics board** and not Pinnacle Pro-ONE (3D Renderer) is used as primary monitor and that the *Extend my Windows desktop onto this monitor* check box is activated for Pinnacle Pro-ONE (3D Renderer).





# Chapter 7: Quick Tour

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In this chapter you can take a quick tour to see the most important steps in creating a video using Pinnacle **Pro-ONE** and Adobe Premiere. If you are able to follow the tour with your system, then you can be sure that your system will function perfectly.

The following steps will be carried out based on an example project:

- ♦ Hooking up your video equipment to Pinnacle **Pro-ONE**
- ♦ Starting the example project and its analog output
- ♦ Creating a new project in Adobe Premiere
- ♦ Capture settings and capturing video clips
- ♦ Editing in Adobe Premiere with Pinnacle Effects (real-time effects and TitleDeko RT amongst others)
- ♦ Exporting the video project.

## PREREQUISITES

A prerequisite for following the tour in this chapter is to have Pinnacle **Pro-ONE** installed, a control monitor connected to an analog output of the blackBOX and a DV device for recording video.

In this chapter you will find out how to use the facilities of the **Pro-ONE** board, which differ from the standard functions of Adobe Premiere. These differences refer to the general settings and project presets for the hardware and software of Pinnacle **Pro-ONE**. For more detailed information on the standard functions of Adobe Premiere, please refer to the Adobe Premiere manual.

## HOOKING UP VIDEO EQUIPMENT TO **PRO-ONE**

- Connect your DV device to Pinnacle **PRO-ONE** using the FireWire-1394 interface (use the DV cable provided).
- Switch your DV device to the *Player* mode (VCR mode).
- If you are using an analog video device (VHS or S-VHS), make the video and audio connections to the blackBOX.
- Connect your video monitor to the output of the blackBOX (e.g. via the composite output).
- Also, make an audio connection to an external active loudspeaker. If your monitor has its own audio system then this can be used.

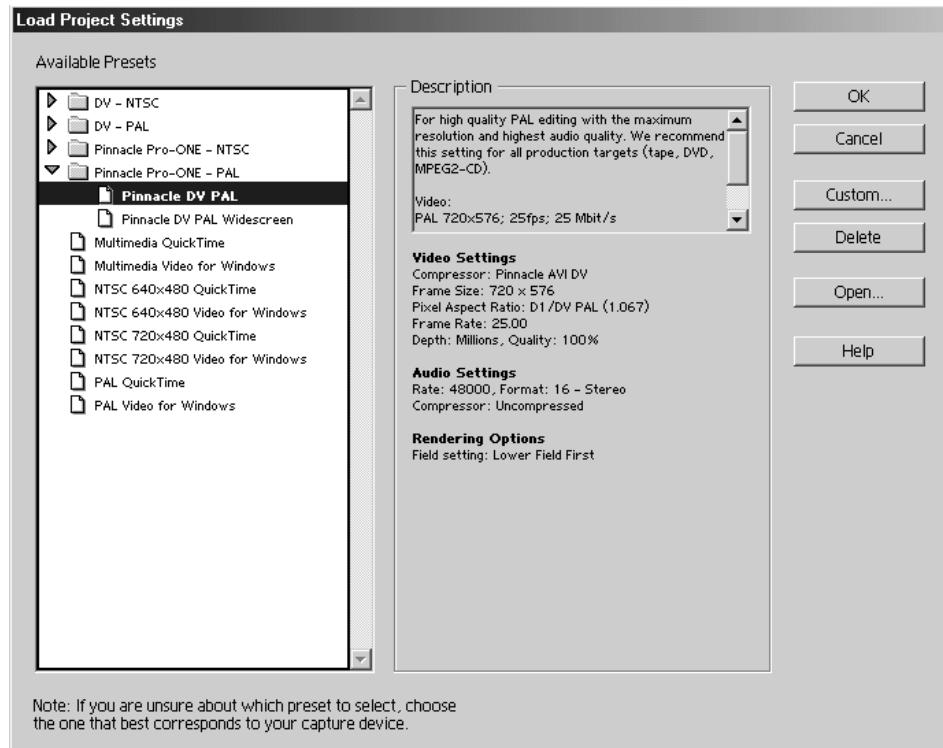
## STARTING AND PLAYING BACK A SAMPLE PROJECT

1. Copy the SampleProject file from where it installed to the video capture / playback disk drive for best performance. Double click on the *My Computer*, double click on the *C:\*, then double click on the Program Files. Double clicking on the *Pinnacle* folder, then *PRO-ONE* should reveal a folder named *SampleProject*. Right click on this and select *Copy*.  
Close the window.  
Double click on *My Computer*, then right click on *D:\* (where D is the letter of your video capture / playback disk drive), and select *Paste*.  
Close this window.
2. Start Adobe Premiere from the program group in Pinnacle **PRO-ONE** (*Start* menu, commands *Programs*, *Pinnacle Pro-One* and *Adobe Premiere*).
3. Choose the project preset *Pinnacle DV PAL* (the project presets provided include all the defaults that will guarantee optimum performance of **PRO-ONE** with Adobe Premiere).
4. Now open the example project in Adobe Premiere using the *File* menu and the *Open* command:  
**d:\SampleProject\DemoProOne.ppj.**  
The project will be displayed in the Premiere editing window.
5. Activate the editing window by clicking with the mouse and then pressing the <Enter>-key. The playback of the project should start immediately.  
The video will appear on your video monitor. If this is not the case, check the cabling or the program position (e.g. AV1).  
Feel free to experiment and make changes, noting the changes made to the effects and the overall look and feel of the project. If you wish to save the changes, click on *File*, then *Save As...* and give the project a different name (e.g. *MyChanges.ppj*).
6. Close the sample project.

## CREATING A NEW PROJECT

1. Create a new directory for storing all files specific to the project (video clips, titles, frames, etc.).
2. Start a new project using the *File* menu and the *New Project* command.

The *Load Project Settings* window will appear.



Here you will find that there are two project presets available in the “Pinnacle **Pro-ONE** – PAL” folder

- ♦ *Pinnacle DV PAL*
- ♦ *Pinnacle DV PAL Widescreen*

3. If you are using video material in 16:9 format choose *Pinnacle DV* (PAL or NTSC) *Widescreen* here, otherwise choose the *Pinnacle DV* (PAL or NTSC) project preset.

All the real-time effects and titles will be matched accordingly to the selected mode and will be displayed with the appropriate aspect ratio and the corresponding resolution.

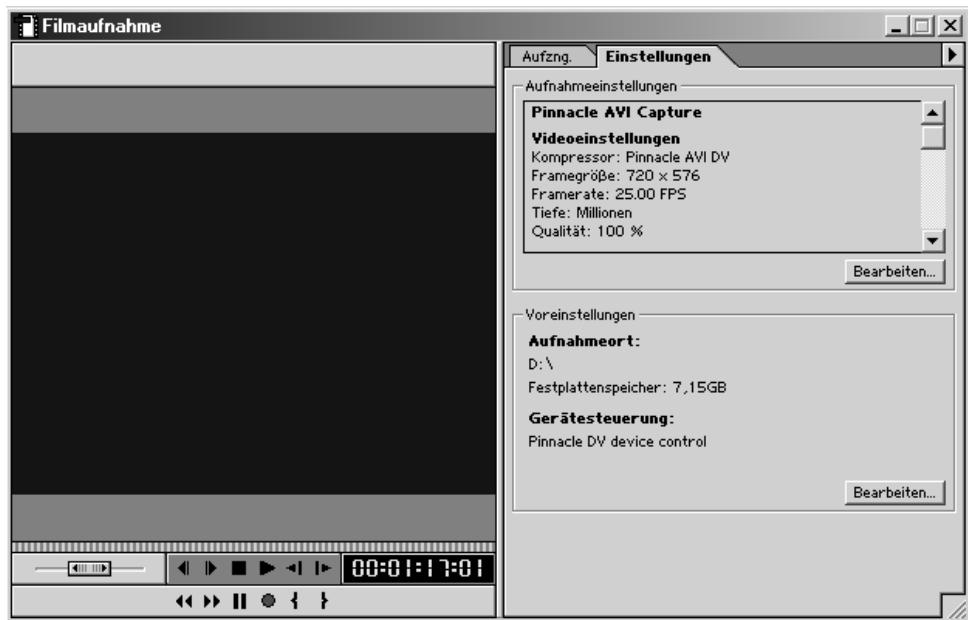
These defaults automatically set the right output resolution, change the sequence of the half frames, the audio format and set many other Adobe Premiere parameters to the values necessary for optimum operation of your **Pro-ONE**.

4. Now save your new project using the *File* menu and the *Save as* command. Choose the directory that you created earlier and enter a new project name.

## CAPTURE SETTINGS AND CAPTURE

1. Start the *Movie Capture* window using the *File* menu and the commands *Capture* and *Movie Capture*.

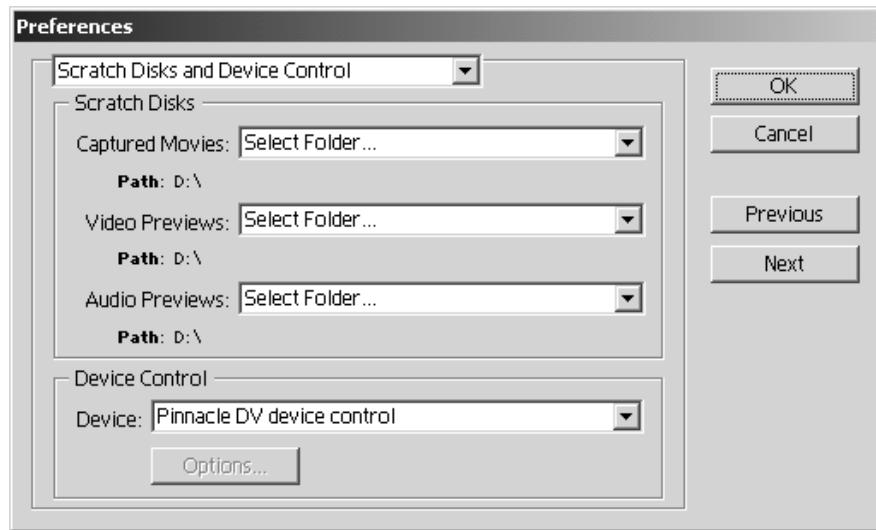
The capture window will be opened. When the DV device is switched on (VCR mode), the device control will be detected automatically and the controls will appear at the bottom of the preview window. However, if you are using an analog video source, the *Record* button will be shown in the capture window at this point.



Before you can record video sequences under Adobe Premiere, you must select the recording drive (Scratch Disks). The recording drive is the drive on which your video files are stored. It should have sufficient performance and enough free storage space for capturing the digital video. You can test this with the DVExpert tool (*Start, Programs, Pinnacle Pro-ONE, Tools, DVExpert*). When you initialize your first movie recording, Premiere will automatically prompt you to select a drive for recording. When selecting the drive, please proceed as follows:

3. Click on the *Edit* button in the *Preferences* area.

The *Preferences* window will open.



4. Select the destination directory on your video hard disk under *Scratch Disks*.

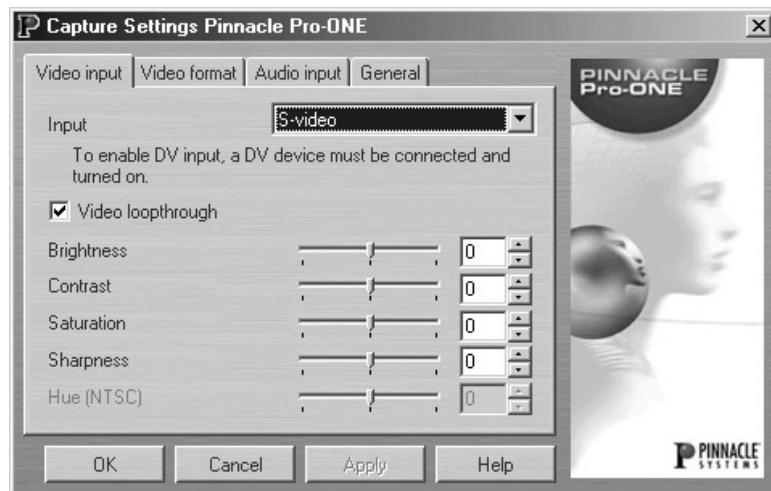
*Pinnacle DV device control* must be entered in the *Device Control* area.

In the case of an analog video source, no device control is entered.

Close the window with *OK*.

5. The details of the project settings will be shown in the *Capture Settings* area. Open the *Project Settings* window using the *Edit* button. Click on the *Settings* button.

The *Capture Settings Pinnacle Pro-ONE* window will appear.



♦ *Video input* tab

Choose the video input that your video source is connected to and adjust the values for brightness, contrast etc. as required (only selectable with analog video sources).

- ♦ *Video format* tab  
Select the video standard and the frame size here.
- ♦ *Audio input* tab  
Choose the audio input and the required audio recording format here. You can also adjust the recording level for the audio at this point if required.
- ♦ *General* tab  
Choose the overlay settings here.

6. Now click on *OK* to accept the new values and close the dialog window.
7. Click on the *Record* button in the *Movie Capture* window. When a device control is selected, the *Record* function will be displayed as a red button amongst the selection of other commands for the control of the device. The capture will start. The video will be displayed on your PC monitor and recorded.
8. Watch the progress indicator in the *Movie Capture* window. If you notice that frames are being omitted, press the <ESC> key to terminate the recording. Please check that your system resources are adequate for the settings made.
9. When you have captured your video material, press the <ESC> key to terminate the recording. A window will appear in which you can enter a file name. The video clip will then be automatically incorporated in the Adobe Premiere project window.
10. Repeat this procedure a number of times.
- Note:** In Adobe Premiere there are other ways in which you can capture your video material from a DV video source. One is to make the recording using IN and OUT points and another is to use batch capture (using a batch list that you have created yourself). You will find more detailed information in the Adobe instruction manual.
11. Close the *Movie Capture* window.

Your DV device can be switched off for the subsequent editing of the video project. While editing, use the analog cabling to your video monitor to display the real-time effects in real time. Only when you have finished your project you need to switch on your DV device again to save the project to DV.

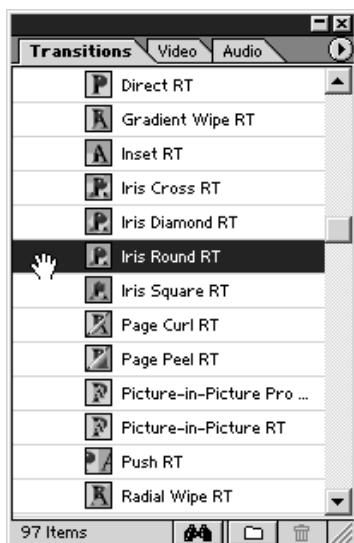
# EDITING IN ADOBE PREMIERE

The following describes editing in Adobe Premiere with Pinnacle Effects (including real-time effects and TitleDeko RT) as well as playing back the project.

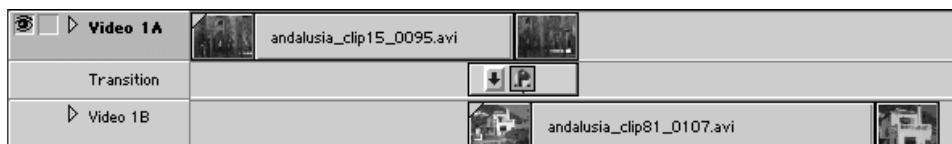
1. To edit video clips, activate the *Project* window. Choose a video clip and drag this into the editing window onto video track *Video 1A*.
2. After this, drag a second video clip from the project window into the editing window onto video track *Video 1B*. The working area in the editing window will increase automatically when the video clip is moved. By appropriate overlapping of the two video clips, a Pinnacle real-time transition can be added from the *Transitions / Pinnacle* palette.

## Real-time effect

Here there are a number of real-time effects available including *Alpha Magic effects* (which can be selected from the Pinnacle *Gradient Wipe* transition) as well as the high-quality 3D *Hollywood FX RT* real-time effects.



3. Choose the *Iris Round RT* transition and drag this between the two video clips in the *Transition* track. In doing so, note that the length of the transition determines the speed of the effect on playback.



4. Now start the first playback of the video project. Make sure that the editing window is active and press the <Space> bar (on the keyboard). If you press the <Space> bar again, the recording will be stopped. Another way of recording is by “scrubbing” in the editing window. To do this, move the mouse pointer to the time line (edit window). The frame corresponding to the position in the time line will appear in the preview window.
5. The video will appear on your video monitor. When this has happened, save your project.
- TitleDeko** 6. Open the *TitleDeko RT* title generator from the *File* menu using the commands *New* and *TitleDeko*. Here you can enter text and select a font and the size and style of the text. Select the text from the *Edit* menu using the *Select All* command and center this in the *TitleDeko* window.



7. Accept the title in Adobe Premiere with <F12> (save the title if you are prompted to do so).

The title will be created in the Adobe Premiere project window.

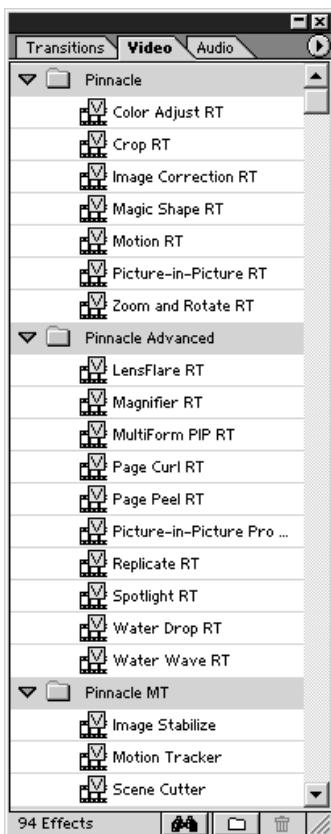
8. Drag the title into the editing window (video track Video 2) on top of the first video clip. Move the mouse to the end of the title and drag this to the required length. Now start playing back your project with the help of the <Space> bar. The video with the title will appear on your video monitor. Now save your project.

**Note:** If you want to edit the title again, double-click on it in the editing window. *TitleDeko* will be opened and the title can be modified. If you now use the <F3> key, you will see the changes on the video monitor. Accept the title in Adobe Premiere with <F12>.

In TitleDeko RT you can not only create static titles but also moving titles (rolling or sliding)!

## Real-time filters

In the *Transitions* palette on the *Video* tab is a folder with Pinnacle real-time filters. You can place these directly onto a video clip.



A setup dialog will open where you can make all the settings. You can accept the settings by clicking on *OK*.

9. Now start playing back the video project with the help of the <Space> bar. The video with all the effects will appear on your video monitor.

**Important:** All effects that have not originated from Pinnacle will show an “x” (☒) when they are being played back until they have been rendered. To do this, press the <Enter> key. The necessary calculations will then be performed.

## WAYS OF EXPORTING

The following section describes the exporting of your project

- ♦ to an analog recorder
- ♦ to DV
- ♦ as Pinnacle MP2
- ♦ as Pinnacle AVI

## Outputting to an analog recorder

Outputting is currently set up for outputting via the **blackBOX (analog outputs)**. To record onto an analog video recorder it is necessary to connect a video recorder between the output of the blackBOX (composite or S-VHS as well as audio L+R) and the video monitor.



It is essential that you note the choice of program position on the video recorder (e.g. AV1).

1. By pressing the <Space> bar, the video project is sent to the video recorder via the blackBOX. Switch the recorder manually to “Record” first of all.
2. If you are using effects that do not originate from Pinnacle, the message “Project needs rendering” will appear in the Instant Video RT window. Start the playback using the <Enter> key. All the necessary calculations will be carried out and the playback will start automatically. Before doing so, switch your video recorder manually to “Record”.

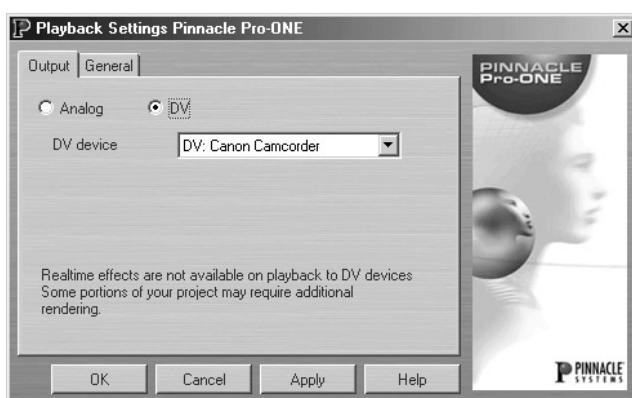
## Outputting to a DV device

If you are playing a new DV tape, this must have a continuous time code. To achieve this, switch your DV device into *Camera* mode. Rewind the tape and press the Record button with the lens covered until the tape has been fully recorded.

Some settings have to be made for outputting to DV tape.

1. To do this, in Adobe Premiere click on the *Instant Video RT* window with the right mouse button and choose the *Settings* command.

The *Playback Settings Pinnacle Pro-ONE* window will appear. Select your DV device in the *Output* tab and close the window with *OK*.



2. By pressing the <Space> bar, the video project is sent to the DV device (DV input) via the FireWire-IEEE 1394 interface. The recording function is not started automatically. The video should now be visible in the display of the DV device or on the video monitor connected to it.

3. To save the video to DV tape, ensure that the editing window is active and that *Pinnacle DV device control* under *Scratch Disks* is set up (*Edit, Preferences, Scratch Disks and Device Control*). Choose the *File* menu and the commands *Export Timeline* and *Export to Tape...* .

The creation of the remaining effects will now start.

4. In the *Export to tape* window, activate the *Activate recording deck* function. This will automatically put the DV device into record mode.

If you should already have a video movie on your DV tape, you can specify the start of the recording by additionally activating the *Print to tape options* in the *Timecode and Preroll* area.

The *Preroll* button allows you to make fine adjustments to the synchronized start of playback and recording. This procedure is not necessary with a new DV tape.

5. After completing the settings, confirm with *OK*.

Premiere switches over to playback mode, instructs the device control to prepare the required operations and starts the playback. After playback has finished, Premiere switches back to editing mode once more.

The settings just made are not saved and must therefore be entered again as required.

6. If you find that recording has not been started or finished accurately, we would recommend you to use black frames at the start and end of your project. This will ensure that the whole project is recorded. Note that the accuracy of the *Export to tape...* function is dependent upon the DV device used. Pinnacle Systems cannot guarantee that all DV devices support this function.

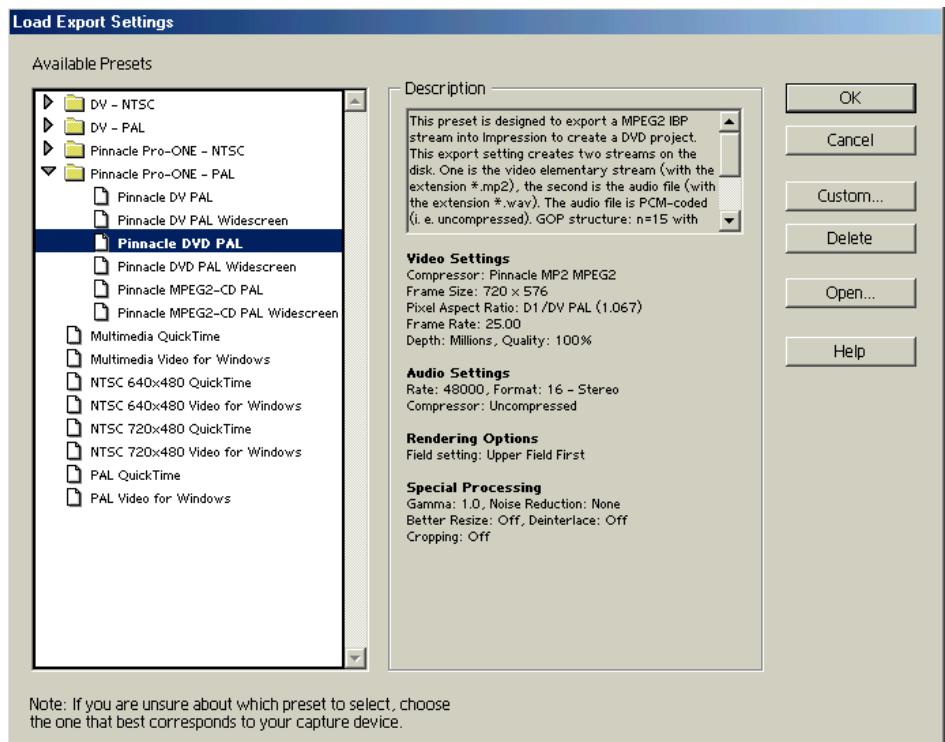
## Exporting as Pinnacle MP2

Another possibility for saving your video project is to export it as Pinnacle MP2. In this way you can prepare your video for further editing (with Pinnacle Impression) on DVD.

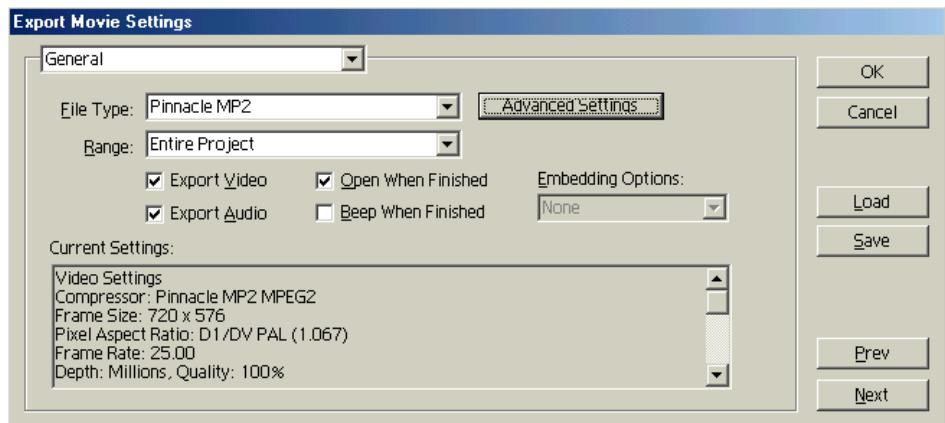
1. In Adobe Premiere, choose the *File* menu and the commands *Export Timeline* and *Movie*. In the window that follows, you can specify the target directory and the file name. Before saving, click on the *Settings* button.
2. In the *Export Movie Settings* window select the entry *Pinnacle MP2* under *File Type*.
3. Click on the *Load* button and select the entry *Pinnacle DVD (PAL or NTSC)*. If you have created your project in widescreen format, select *Pinnacle DVD (PAL or NTSC) Widescreen*.

To carry out the MP2 export as an MPEG2-CD, you can either choose the preset *Pinnacle MPEG2-CD (PAL or NTSC)* or *MPEG2-CD (PAL or NTSC) Widescreen*.

4. In this step, choose the entry *Pinnacle DVD (PAL or NTSC)* and close the *Load Export Settings* window with *OK*.



5. In the *Export Movie Settings* window, activate Pinnacle Impression using the *Advanced Settings* button and activate the check box *Open When Finished*.



6. Confirm all windows with *OK*.

The creation of the video project will now be started. When the calculations are complete, Pinnacle Impression will open automatically and the MP2 video file and the associated \*.wav file will appear in the Impression editing window.

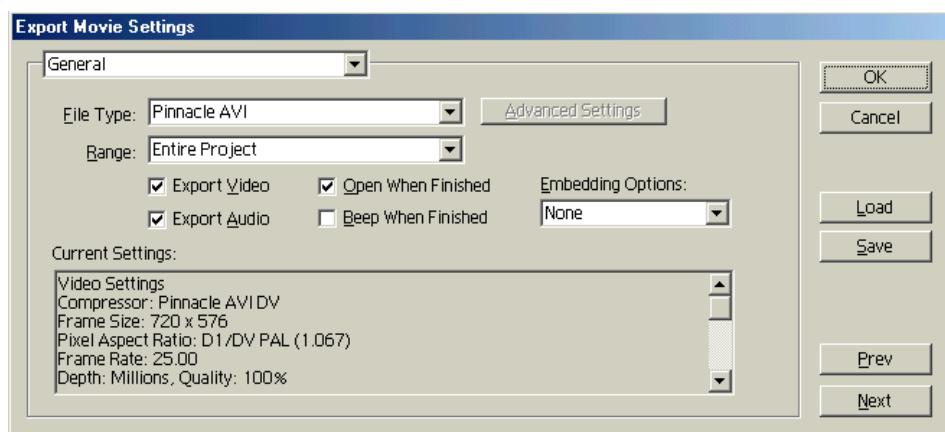
7. You can now add various menus and create the final MP2 file using the *Build DVD* function. This is loaded into DVD burning software in order to create a DVD.

## Exporting as Pinnacle AVI

Exporting as Pinnacle AVI is another way of saving your video project. Here, you create an \*.avi file from your project in Adobe Premiere.

**Warning!** The maximum possible size of the \*.avi file to be created will depend upon the file system you are using, FAT16, FAT32 or NTFS.

1. In Adobe Premiere, choose the *File* menu and the commands *Export Timeline* and *Movie*. In the window that follows, you can specify the target directory and the file name. Click on the *Settings* button before saving.
2. In the *Export Movie Settings* window, choose the entry *Pinnacle AVI* under *File Type*. The details of the calculation will be shown under *Current Settings*.



3. Confirm all windows with *OK*.

The creation of the video project will now be started. When the calculations are complete, the clip widow will open and the video file (\*.avi) can be played back by clicking on the *Play* button. The video will be displayed depending on the choice of video output – analog or DV (*Instant Video RT*, right mouse click, *Settings*).

# Part II - Creating Movies

**Part II of this manual explains the applications that come with Pinnacle Pro-ONE.**



**Working with DVTools**



**Pinnacle Effects**



**Pinnacle Pro-ONE & Real Time**



**TitleDeko RT**



**Hollywood FX**

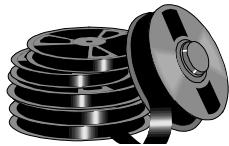


**Alpha Magic FX**



**Exporting Projects**





# Chapter 8: Working with DVTools

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DVTools provides you with the facility to record video material or individual pictures easily and conveniently from an analogue or DV device onto the hard disk or to play it back on a videotape.

If you use a DV device, DVTools will also help you in viewing and archiving your DV tapes and will enable you to effectively choose the clips needed for your movie. Recording and playback take place automatically via the DV device control, even when you have several clips one after the other.

Your DV tapes are scanned and the positions of the clips stored in a database. You can show individual clips, define new starting and finishing points for a scene and conveniently arrange your clips in a Clip Gallery. Only then are the chosen scenes recorded onto your hard disk. The Clip Gallery can be exported to Adobe Premiere as a Storyboard for further processing.

In this way, you can edit the recorded video material in Adobe Premiere and then play back the finished results on a tape using DVTools.

Using the “Cutlist-Playback” facility (which means the consecutive playback of analogue, DV, or even different video material without gaps), you can of course also put together the best scenes from several DV tapes and save them to your hard disk. However, with DVTools, you can also save them for archiving onto a new DV tape without any difficulty. This saves you something both in time and in DV tapes.



## Notable features

- ♦ Tapescan with automatic scene identification (also manual)
- ♦ Recording from analogue and DV input
- ♦ Recording of file sizes greater than 2 GByte possible
- ♦ Cutlist Playback for analogue and DV
- ♦ Cutlist Playback for different material
- ♦ Recording time and date changes
- ♦ Batch list export to Adobe Premiere Storyboard format

# PREPARATION



## Connecting the video source

With DVTools you can record from both a DV device and from an analogue video source. If you have not already done so, connect your unit now to the **Pro-ONE** board (DV device) or the blackBOX (S-VHS / composite device). Switch the unit on and make sure that it is in playback *VTR* mode. If you have not already done so, insert a videotape into the unit.



## Open DVTools

Choose *Programs* in the *Start* menu. Choose the *Pinnacle Pro-ONE* program group and click on *DVTools*. If you open the DVTools for the very first time the “Capture Options” dialog box will appear. For information about this box, please refer to the “Checking the settings” section as of page 51.



You will find yourself in the DVTools – Capture Gallery window. Here, you can define the capture settings, scan DV tapes and record clips. For playing back video material onto videotape later, DVTools automatically switches over to the DVTools – Playback Gallery window. For more information, read the section “Playback” on page 59.

## The “New”, “Open” and “Save” buttons

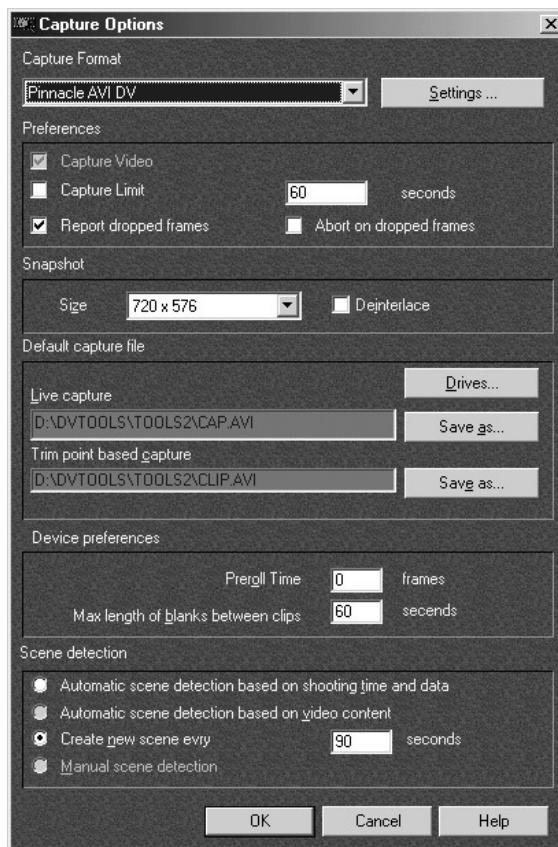
-  You can create a new Capture Gallery using this button.
-  This button opens a new Playback Gallery.
-  With this button, you can open a Capture or Playback Gallery that has previously been saved.
-  The Capture / Playback Gallery will be saved when you click on this button.

You will also find these commands in the *File* menu.



## Checking the settings

Check the settings by clicking on the *Settings* button at the upper right-hand edge of the window.



Check all the settings in the *Capture Options* dialogue box. *Pinnacle AVI DV* should be set for the Capture Format.

**Important:** The *Default capture file* option lets you specify the disk drive on which the video data will be saved. Please select your video disk.

Click on the *Settings...* button in order to open the **Pro-ONE** check window. On the *Video input* tab check that the correct input is set: *S-video*, *Composite*, or *DV Camcorder*. Open the *General* tab and make sure that an *Overlay* has been selected.

You will find a detailed description of the individual parameters in the online help.

**DV device only** If you are using a DV device, check the settings under *Tools* and the *Device Control settings* command in the menu. If you want to control your device from within DVTools, click on the *Activate device control* check box.

## SCANNING TAPES

You can record your video material directly from videotape by winding the source video to the required position and clicking on the *Capture* button. Read more about this under *Special recordings* on Page 58.

However if you want to record more material from different positions or if you do not have an overview of the DV tape contents, it is recommended that you first scan the whole videotape. This is only possible with DV devices on account of the device control required.



### Scanning video tapes

When you scan a videotape, no video pictures are recorded onto the hard disk. The scanning only searches for the start and finish points of all the clips on a DV tape so that you can find the clips that you want to use for your final movie more easily.

You can choose the type of scene detection under *Settings*:

- ♦ Automatic scene detection based on shooting time and date
- ♦ Automatic scene detection based on video content
- ♦ Create new scene every x seconds
- ♦ Manual scene detection

With manual scene detection you define the start of a new scene by pressing the space bar during playback.

**Note:** If possible, you should use formatted tapes for scanning so that a continuous time code is available as otherwise this can lead to scanning errors. You format tapes by first recording “nothing” on the tape from start to finish. To do this, wind the tape to the beginning, cover the lens with the cap and record the whole tape. This results in a continuous time code, which is also retained when you start recording.



To start the scanning process, click on the *Scan* button or choose the *Scan DV tape...* command from the *Tools* menu.

After the videotape has been rewound, DVTools identifies the tape.

- ♦ If the tape is not known to the database, in the next step you are requested to give a name and a description.
- ♦ If the tape has already been scanned, you can terminate the procedure at this point or repeat it.

DVTools then searches the videotape for clips. This process lasts about as long as it would take to play back the existing video material from your videotape.

To terminate the scan, press the <ESC> key.



You can continue an interrupted scan from any point at any time. To do this, re-start the scanning process, choose *Rescan*, click on *OK*, and in the following window either enter the clip number from which the scan is to be started or choose *Continue*.

A window will appear showing all the clips found on the tape in the form of a “Posterframe” (the first picture in a clip).



If you want to use several videotapes for your movie, proceed in this manner for each tape. The contents will be held separately for each tape in a database and can be called up again at any time. DVTools manages any number of tapes.



## Choosing clips

In order to view information for a scene, double-click on the required clip. The *Clip Info* window will appear.



The *Clip Info* window shows the title of the clip, the time code and – if available – the editing points. You can also add a description of the clip at this stage, and set editing points.



In order to view the selected clip, wind the tape to the start of the clip by clicking on the *Wind to start* button.\*

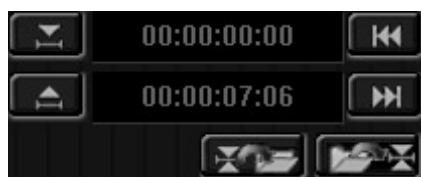


When the DV device has found the start of the clip, click on the *Play* button in the *DV device control* area.



## Editing clips

It is possible that you may not want to use the whole clip but only a certain part of it. In this case, you can edit the clip using the elements that you can see to the right of the Preview area. This takes place either in the Clip-Info window or using the controls in the lower right-hand part of the Capture Gallery preview window.




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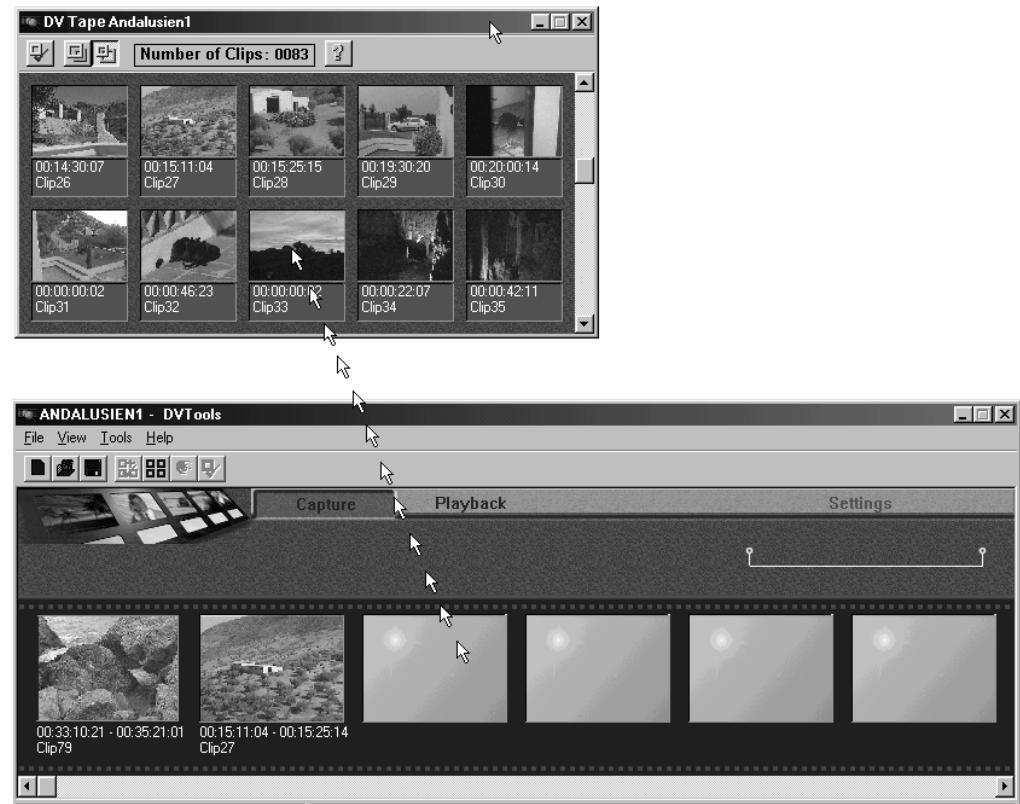
\* This step is not necessary if you have recorded the clip using the *Live capture* or *DV extract* buttons.

Here, the start and finish points of a clip are defined using the  (Start) and  (Finish) buttons. You can either click on the buttons during playback or you can stop the tape and then set the start and finish points. The tape can easily be wound forwards and backwards using the slide control (Jog-Shuttle) in the lower part of the *DV device control* area. When you have entered the start and finish points, click on  (Accept start and finish points). The  button will delete pre-defined trimming points.



## Incorporating video sequences into the Clip Gallery

When you have viewed your video material, you can now choose the clips that you want to capture on your hard disk. To do this, drag the required clips directly from the DV tape database into the Clip Gallery. You can arrange the clips in the Clip Gallery in any order you like. You can also change the order retrospectively.



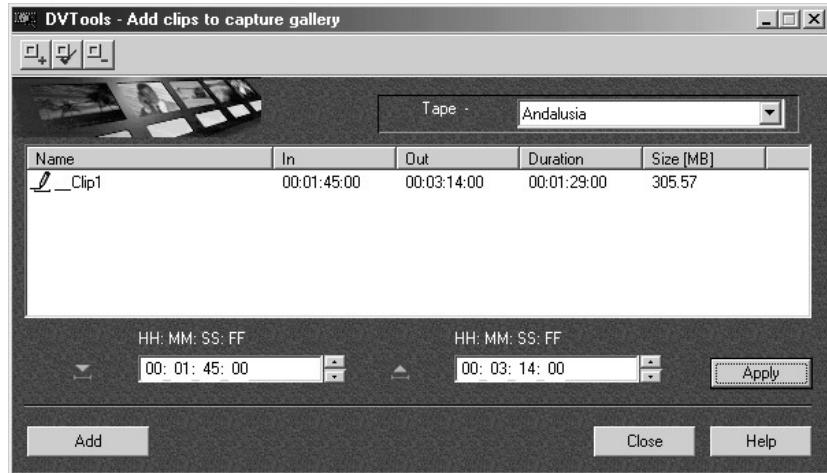
You can use video material from any number of DV tapes in one Clip Gallery.



## Adding clips manually



If you want to add further clips manually (including from other videotapes), click on the *Add clips to capture gallery* button.



Click on the *New* button, select the *Tape* and define the start and finish points. Click on the *Apply* and *Add* buttons. The clip will be added to the gallery.



## Saving a project / gallery

Save the contents of the *Clip Gallery* with the added clips and the newly set start and finish points. To do this, choose *File* and *Save Gallery as...* from the Clip Gallery menu. The Clip Gallery files will be saved on your hard disk with the ending \*.sto.



When the clips from the Clip Gallery have been captured on hard disk, you can export the Clip Gallery to a Premiere Storyboard. Read about this under “Export as Premiere Storyboard” on Page 62.

# VIDEO RECORDING



## Recording clips on hard disk (Batch Capture)

After you have chosen the clips for your movie, you can create AVI files from them.

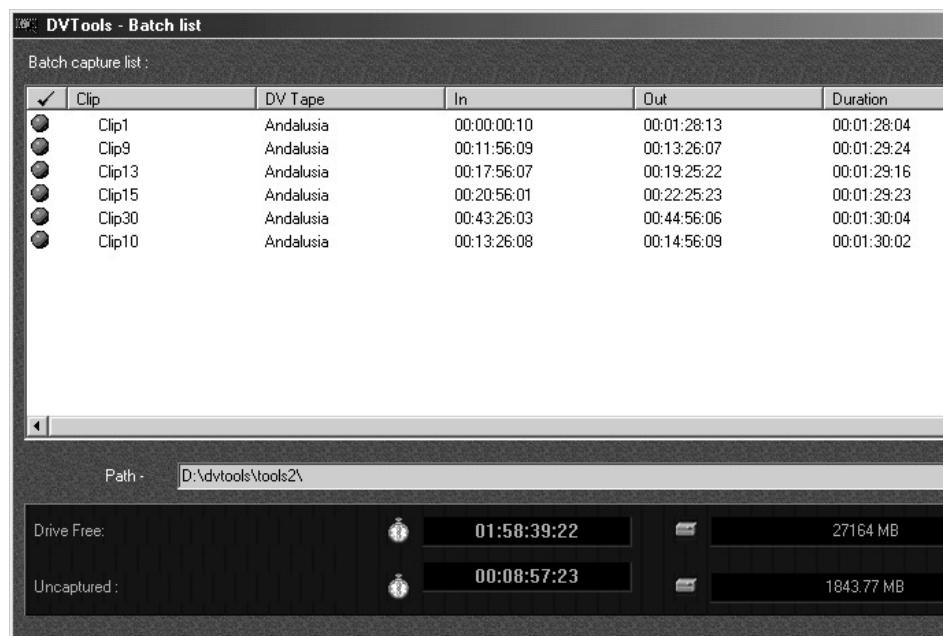
The status bar in the lower part of the *Clip Gallery* window shows the expected size of all the AVI files to be created. DVTools checks to see that there is sufficient memory space available before recording.

Clip Count: 0006 00:08:57:23 1843.77 MB



To start the recording process, click on the *Capture* button at the top right-hand part of the DVTools window or choose *Capture Scenes from capture gallery* from the *Tools* menu.

Before starting the recording process, the *Batch list* window showing all the selected clips is displayed. Here you can see which clips have already been captured and which are still to be recorded.



The “circle” on the left beside the individual clips means that this clip has been selected for capture. You can remove this selection by clicking on the symbol with the mouse. Clicking on the “tick” will select all clips for capture or remove the selection as appropriate.



If a clip has been captured, the camera symbol will appear to the left of the clip. If you want to capture it again (e.g. because some frames have been left out), click on the camera symbol.

AVI File

If you do not want to use the standard directory that you have selected under *Settings*, click on *AVI File*, enter a file name and choose a directory into which you would like to copy the AVI files.



If you do not want to use the standard directory that you have selected under *Settings*, click on *AVI file*, enter a file name and choose a directory into which you would like to copy the AVI files.

All clips in the Clip Gallery will then be recorded. The AVI files will be numbered consecutively in order and created in DVExplorer under *Captured Files*.

**Note:** If an individual clip is larger than 4 GByte, it will be divided into several clips, as files with a maximum size of 4 GByte can be stored on FAT32 formatted hard disks.

You will find particulars of the memory space in the status bar at the bottom.

## Special recordings



### Live recordings



You can record your video material directly from videotape by winding the source video to the required position and clicking on the *Capture* button. The sequence will be directly written to the hard disk. To stop recording, click on the *Stop capture* button. In the *Save as* window you will be asked to allocate a file name. After this, the *DVTools – Report* window will appear giving you details of the number of recorded pictures and the pictures omitted. You can record as many sequences as you like in this way.



### Recording DV extracts



With this button, you can record just an extract of the scanned video clip after you have reset the in and / or out point. Here too, the clip is recorded immediately onto the hard disk.



### Recording individual frames

With DVTools you can also record individual frames from your video source. Before using DVTools for recording individual frames from your video material, you should check the particular settings for TV standard and BMP size under *Capture Options*.

**Image size** Choose the image size for your single frame from the list box under *Snapshot*.

**Movement compensation** If the picture movement is to be filtered out (deinterlacing), choose the *Deinterlace* option.

You will find more information on “deinterlacing” in the online help for this dialogue.

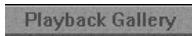
If you are working in VTR mode, look for the picture on your videotape that you want to record using the tape transport buttons and click on the *Pause* button to stop the videotape.



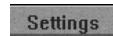
Click on the *Snapshot* button. You can now enter a name and directory under which the BMP file is to be saved.

## PLAYBACK

In order to change to playback mode, choose the commands *New Gallery* and *New Playback Gallery* in the *File* menu.



The DVTools – Playback Gallery window will appear. The Clip Gallery is now used for playback and you can specify the playback settings here.

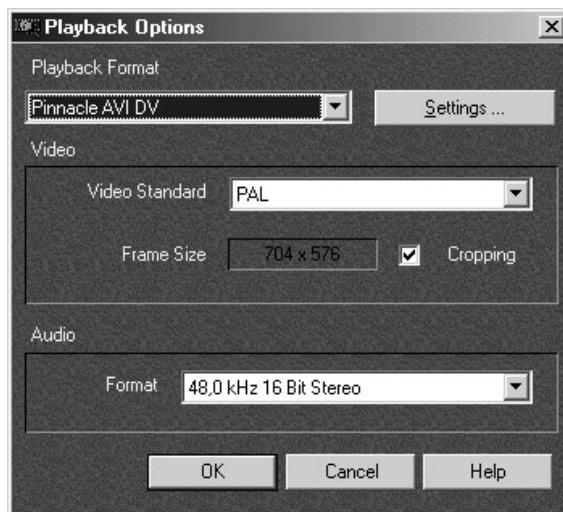


Click on *Settings* in order to check the playback parameters and to change them if required.



### Checking the settings

Before you start, check the playback settings by clicking on the *Settings* button at the top right-hand edge of the window.



Check all the settings in the *Playback Options* dialogue box. *Pinnacle AVI DV* should be set for the playback format.

Click on the *Settings...* button to open the Pro-One check window. On the Output tab check that the correct output filter has been set: *S-video* or *Composite*. If the output is to be made to a DV device, this option must be activated. Open the *General* tab and make sure that an *Overlay* has been selected.

You will find a detailed description of the individual parameters in the online help.

#### DV device only

If you are using a DV device, check the settings under *Tools* and the *Device Control settings* command in the menu. If you want to control your device from within DVTools, click on the *Activate device control* check box.



## Putting together a playback sequence

Now bring together the clips that you want to record in the Clip Gallery. To do this, drag the clips into the Clip Gallery from the list of *Captured Files*. The clips will appear in the *Playback Files* folder. You can change the sequence of the clips by shifting them in the Clip gallery.



## Importing video sequences

Along with the recorded video sequences, other clips can also be added to the gallery for playing back. To add a clip, click on the *Captured Files* folder in the left part of the window with the left mouse button and choose the *Import file* command. Highlight the required files and click on *OK*. The files will appear in the *Playback Files* folder. Drag the sequences into the required order in the Clip Gallery.



## Start playback

### Individual clips **Playing back individual clips in the gallery**

In order to play back individual clips, double-click on the required clip in the Clip Gallery or in DVExplorer. The clip will be played back in the Clip Info window as soon as you click on *Play*. You can also set start and finish points here if you do not want to play back the whole clip.

### All Clips **Playing back all clips in the gallery**

If you want to play back all clips in the gallery, select the first clip in the Clip Gallery. Click right, select *Seek start of clip*, and click on the *Play* button in the Preview window. The clips will be played back in the order that they appear in the gallery.

### From current position **Playing back clips from the current position**

If you select any clip you like in the Clip Gallery as the first clip, click right, select *Seek start of clip*, and click on the *Play* button in the Preview window, all the clips from the selected clip onwards will be played back.

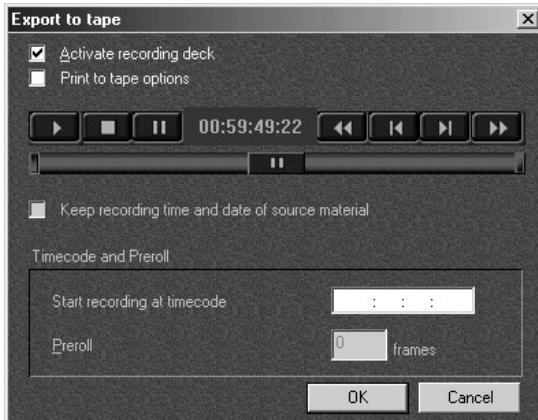


## Capturing to tape



### Recording with a digital device

If you want to capture the Clip Gallery on tape, click on the *Print to tape* button. The *Export to tape* window will appear.



Activate the *Activate recording deck* check box and click on the *OK* button to start the recording.



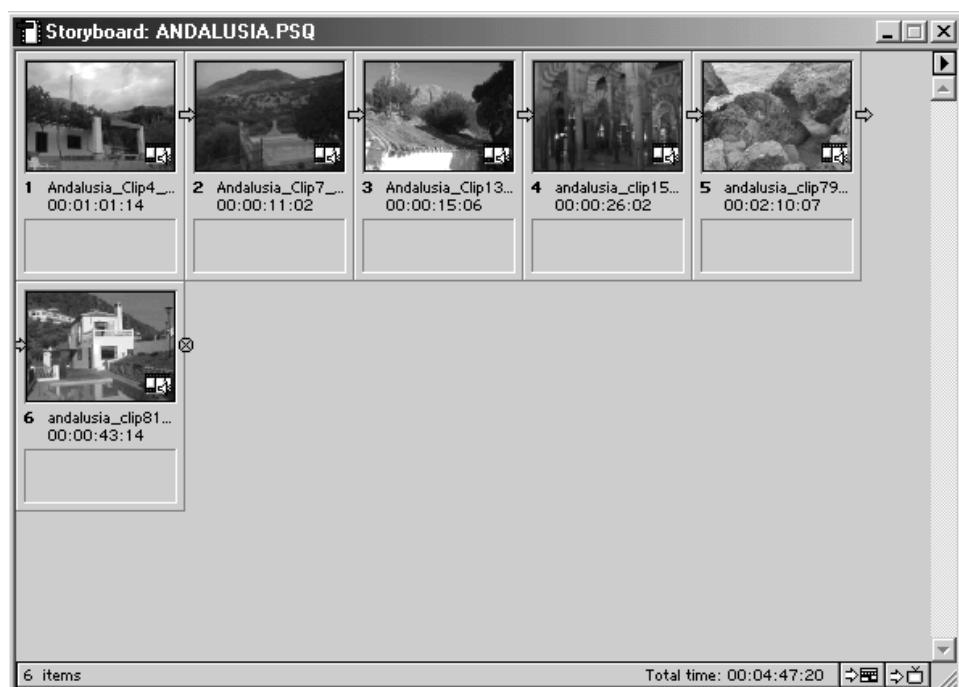
### Recording with an analog device

If you output the clips to an analog device, the recording is started immediately. Switch the unit to record as soon as you want to start recording.

## EXPORT AS PREMIERE STORYBOARD

When you have arranged all the clips in the required order using DVTools, you can export these directly to Adobe Premiere. To do this, choose the *Export - Premiere Storyboard* command in the *Tools* menu. Click on *OK* in the *DVTools - Export* window in order to export all the clips. Allocate a file name for a Premiere Storyboard file (\*.stq) and click on *OK*.

If Adobe Premiere has not already been started, then you must start this application. Choose a suitable Pinnacle project preset and click on *OK*. Open the Storyboard using the *File* menu and the *Open* command. The project will appear in the Premiere Storyboard view.



From here, you can incorporate the clips into the time line and assign effective transitions, filters, titles, etc. to them. You will find detailed information on Pinnacle Effects in the chapter on “Pinnacle Effects” as of page 63. The chapter “TitleDeko RT” on Page 98 describes in detail how fantastic titles can easily be produced.

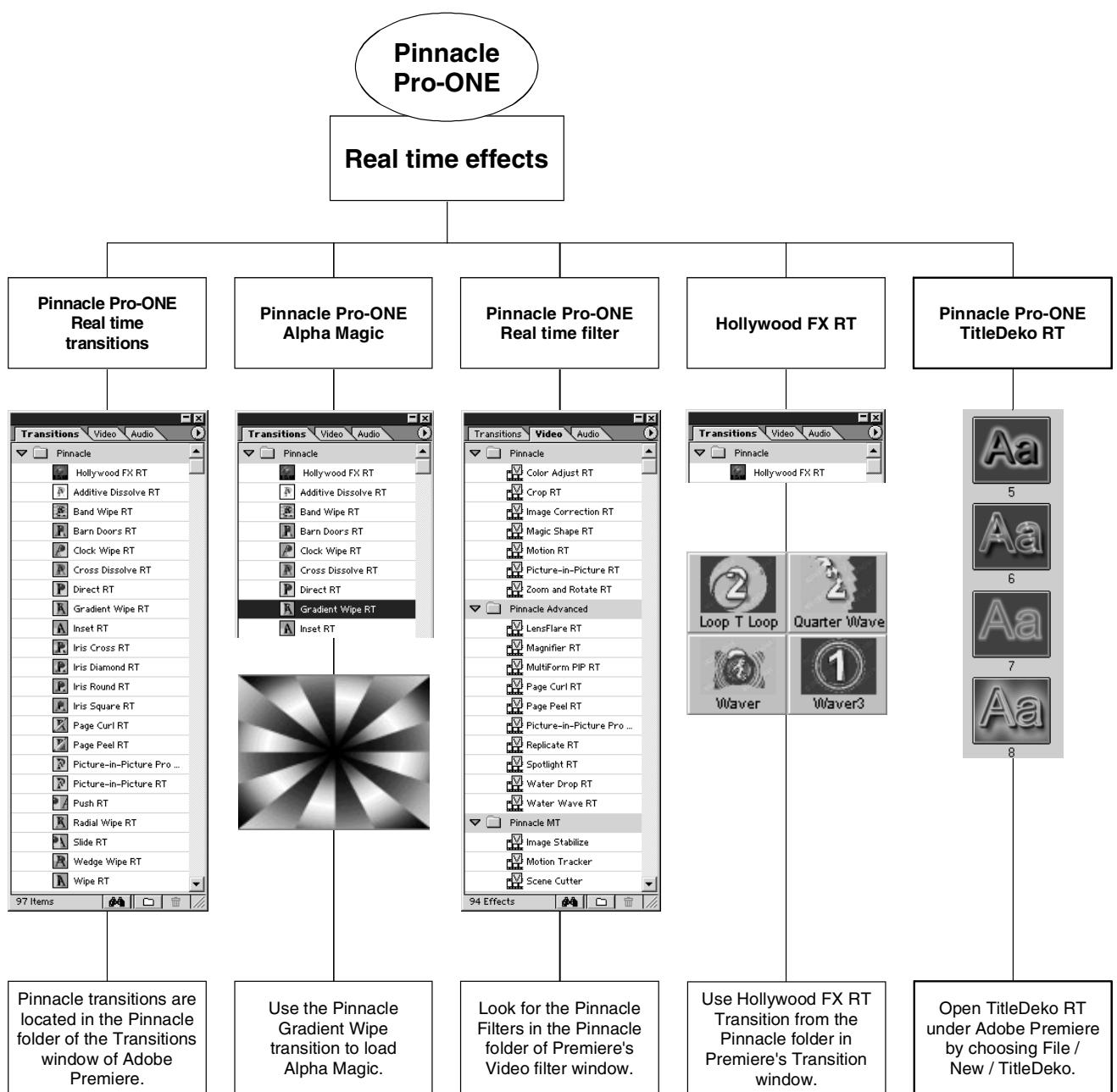
For working with Adobe Premiere, in particular with regard to the possibilities for working with Storyboard, please refer to the associated user manual.



# Chapter 9: Pinnacle Effects

This chapter explains how Pinnacle **Pro-ONE** works with transitions and filters. All effects can be used in real time and with many simultaneous real time combinations. You can find more detailed information on the real time features of Pinnacle **Pro-ONE** in the chapter “Pinnacle **Pro-ONE** & Real Time” on page 89.

The following diagram shows you an overview of the types of effects that Pinnacle **Pro-ONE** provides.



## EFFECTS ANIMATION (KEYFRAMING)

Many other video editing solutions provide real time effects and most also let you change a variety of parameters such as position, angle, border color and thickness and the direction of an effect.

Pinnacle **Pro-ONE** provides all that, but goes a step beyond, because it lets you animate nearly all effect parameters over time. Thus, you can not only create a picture-in-picture transition with a red border and a shadow, but you can animate the movement and even things like the border color over time.

This animation is achieved through so-called *keyframes*. A keyframe is one frame in your transition where parameters are set to a certain value. For example, you can use a keyframe at the beginning of a picture-in-picture transition to define the starting point of the video window. At the end, a second keyframe defines the end position. In between, Pinnacle **Pro-ONE**'s keyframing engine will then move the video window smoothly from the start to the end position.

Keyframing is a very powerful technique that gives you complete control over every single aspect of your effects. However, it can also be somewhat daunting at first. This is why many of the Pinnacle **Pro-ONE** effects provide presets, which are predefined animations that can be called up with a single mouseclick. These presets cover a range of typically used effects animations and are also a good starting point when trying to understand how keyframing works.

## TRANSITIONS

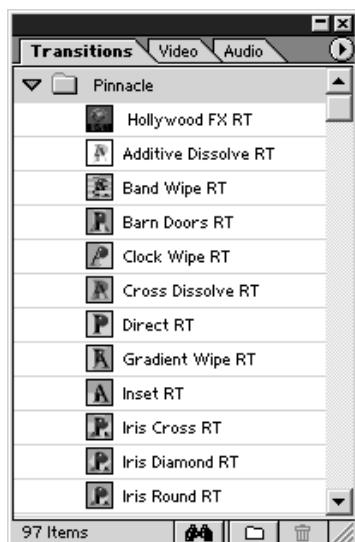


Pinnacle Systems provides a large number of transitions under Adobe Premiere that all run in real time.

Make sure that you work with the transitions provided by Pinnacle Systems wherever possible, as otherwise you will not be able to get the benefit of the Pinnacle **Pro-ONE** real time features. Of course, you can combine the Pinnacle effects with other non Pinnacle effects in any way you choose, but they will not be played back in real time.

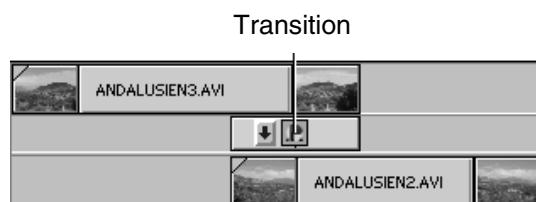
You will find the Pinnacle transitions in the *Transitions* window. They can easily be recognized by the **P** in the icon. (This icon may not appear with default settings)

Some of the Pinnacle transitions are similar to the corresponding Premiere effects, but they typically provide more settings and also keyframing. Furthermore, they can be used in real time.

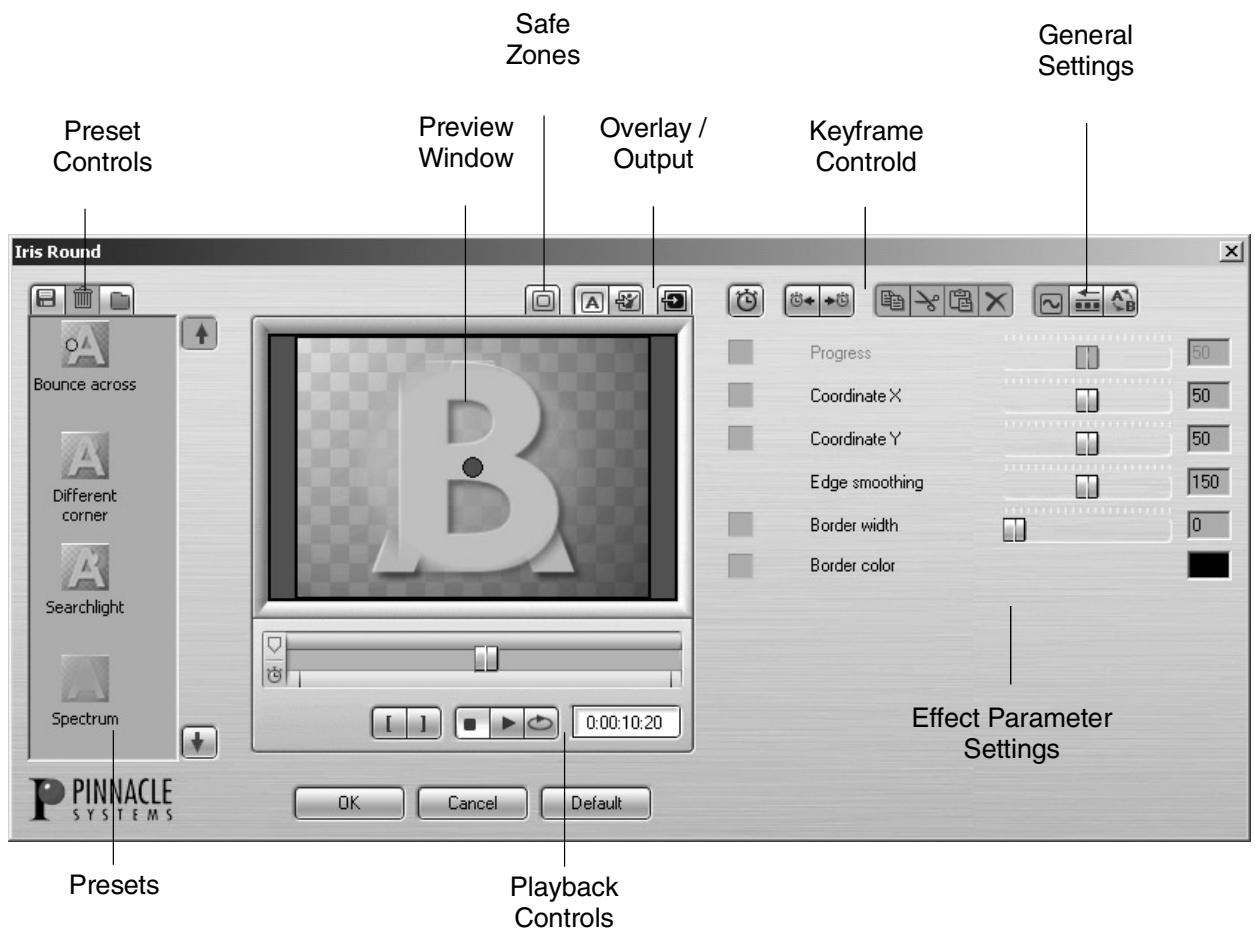


You can change the parameters of each individual transition by

- ♦ double-clicking the transition in the Adobe Premiere *Transitions* window, or
- ♦ double-clicking the transition after moving into the Timeline window.



The individual elements of the effects window are described in more detail below.



## Presets



Presets are saved effects animations. Pinnacle offers you the possibility of using ready-made effects animations for nearly all transitions. For each effect, on the left of the Effects dialog, you will find a selection of presets, which you can select and change to meet your own requirements. In addition, you may also create and save your own presets.



The Presets provided by Pinnacle may also be adjusted to fit your needs. In most cases, this is best done by first moving the position slider to the start (i.e. the leftmost position) and then changing parameters. Otherwise, you may inadvertently generate new keyframes.



With these buttons, you can scroll up or down among the presets.

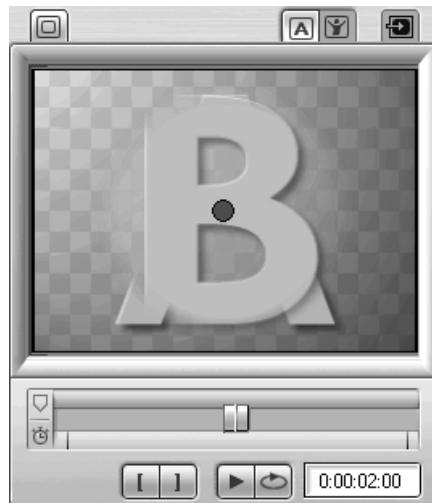


In order to save and delete presets, use the *Save* and *Delete* buttons. Note that the Pinnacle-supplied presets cannot be deleted.



You can use this button to open Pinnacle Preset Manager, which will help you to manage the presets that you have set up yourself. This also includes the import of presets that have been created on a different computer as well as the export of current presets.

## Preview



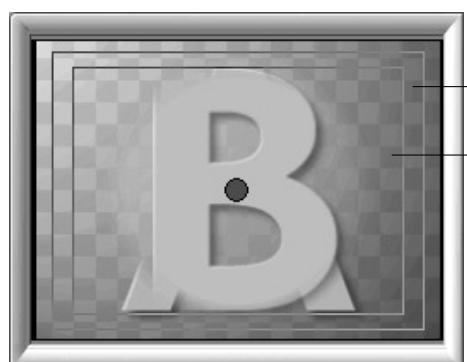
In the preview window you can check to see what your transition will look like as you create your effects.



### Action and title safe margins

Television sets enlarge a video image. In doing so, the outside edges are sometimes cut off at the edge of the screen (overscan). The extent of the overscan is not the same with all television sets. You should therefore make sure that the important parts of the video image, such as effects or titles for example, are situated within the so-called “safe” areas.

If you click on this button, the safe areas will be shown.



With these buttons, you can choose whether placeholders or your original clips are used in the preview.



The “Original clips” option is only available if you opened the transition from the *Timeline* window.



If you would also like to check your video on your TV or video monitor, activate the *Video output* option. The effect will then also be displayed in the Premiere monitor window.

### Controlling playback



You can view the transition from start to finish or position it at a particular point using the *position slider*.

You will be able to see the current position in the Premiere timeline in the timecode display beneath the position slider.

In addition, there are two types of markers shown on the slide control:



♦ Markers from the Premiere Timeline window are shown as red vertical lines above the position slider.



♦ The current effect’s keyframes (see also “Keyframing” at the end of this chapter on Page 87) are shown as blue vertical lines below the position slider.



### Jumping to marker positions

With these buttons you can jump to the previous or next position respectively. Note that this is only possible if markers have been set on the Premiere timeline. If there are no Premiere markers during the time of the transition, the two buttons do not appear.



### Defining the in and out points

These buttons set the starting and finishing point of the transition. They are also known as “in” and “out” points. To do this, move the position slider to the point where the transition is to start and click on the in point button.

Then move the position slider to the point where the transition is to finish and click on the out point button. The location of the in and out points will be shown in the recessed area of the position slider.



### Stop / Play / Loop

If you click on the *Play* button, the transition will be played back from the current position of the slide control. Clicking on the *Stop* button will end the playback.

If you click on the *Loop* button, the clip will be played back from the beginning. If the playback is not stopped, it will loop back to the start indefinitely.



The current position in the Premiere timeline is displayed as timecode. The format is hour:minute:second:frame-count.

## General settings



### Smooth motion

If the keyframing is activated, this button can be selected. A special kind of interpolation allows the progress of the effect to be played more smoothly.



### Reverse

The sequence of the transition can be reversed with this button.



### Swap sources

Video sources A and B can be swapped with this button.



### Use Motion Tracking

**This button is only available with transitions with X- / Y parameters**

If this button is activated, the transition will follow the movement path that the motion tracking RT filter has calculated. This button is only available if you have previously activated the “Motion Tracking” filter.

For more information, please read the corresponding section on Page 83.



### Keyframing



This button switches keyframing on and off.

Warning: If you switch keyframing off, all the settings and the keyframes for the current transition will be lost.



Moves to the previous or next keyframe.



A keyframe and all its parameters is copied, cut, inserted or deleted. This is also useful for moving the position of a keyframe: cut it and then paste it to a different location.



This indicator tells you that a keyframe is set at the current position for the indicated parameter.

The keyframe for this parameter can be switched off by clicking on this icon.



This tells you that a keyframe is possible but has not been set at the current position.

A keyframe is automatically set at this position by changing the parameter.



Parameters that do not have a keyframe symbol (e.g. the “Edge smoothing” in “Pinnacle Iris Round”), cannot be used for keyframing, i. e. they cannot be animated over time.

You will find further details on this subject in the section on “Keyframing” at the end of this chapter on Page 87.



The end of this chapter and Appendix C on page XV contains an overview of the keyboard shortcuts that can be used with the Pinnacle Effects dialogs.

**Other settings** Depending on the effect, the dialog box will show other parameters such as direction, border (smoothing, width, color) and shadow (offset, opacity, direction). Parameters may be adjusted by using their sliders or knobs or by typing numbers into the numeric entry fields. Once a parameter is active by clicking it with the mouse, you can also use the mouse wheel or the arrow keys to change it.

The following sections describes a range of transitions and their settings features:

## Iris Round RT

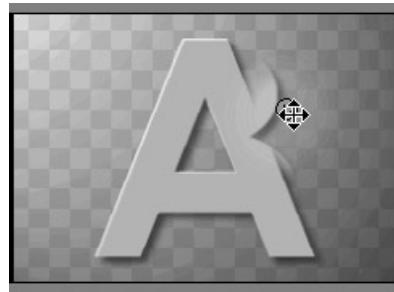


The “Iris Round RT” transition can be customized through a variety of parameters.



**Coordinate X** With this slider you can shift the center of the transition in the horizontal direction.. The current *Position* of the center is also displayed numerically.

<b>Coordinate Y</b>	Please use this slider to shift the center of the transition in the vertical direction. The current <i>Position</i> of the center is also displayed numerically.
<b>Progress</b>	In this transition, the <i>Progress</i> slider controls the opening of the iris circle. The larger the value, the more the circle opens. As a default, the progress runs from 0 to 100%—the circle opens linearly from zero up to its full size. Through keyframing of the progress, you can first open the circle, for example, and then close it again (see also “application example”) or you can freeze the movement for a certain amount of time.



The dot changes its appearance depending on the mouse pointer position:



Inactive.



The center of the transition can be moved freely with the mouse.



The center of the transition can be moved to the right, left, up and down in the direction of the mouse pointer by clicking with the left mouse button.

<b>Border width</b>	You can apply borders of any desired width between the two elements of the transition by using this slider.
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<b>Border color</b>	To define the color of the border, click on the color box and choose one of the standard Windows colors with the color picker dialog.
---------------------	---

<b>Edge smoothing</b>	This slider adjusts the softness of the edge of the transition. Note that it may not be keyframed (i. e. animated over time). Its setting always applies to the entire duration of the effect. This parameter cannot be set for individual keyframes. Its value always applies to the whole effect.
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## Application example

In this application example, you will set up keyframing in such a way that you open the circle to 50%, let it freeze for a short time and then close it again. Using keyframing, only a single transition needs to be used for this.

Proceed as follows:

1. First drag two video clips into the Timeline window, one each for video track 1A and 1B, and overlap them for a second or two.
2. Now drag the *Pinnacle Iris Round* effect to the transition track between the two video clips.
3. Double-click on the transition. The effects dialog opens.
4. Switch keyframing on.
5. Make sure that you are at the beginning of the effect by moving the position slider to the far left. Note that the value of Progress is “0” here. The iris is fully closed.
6. Now move the position slider to approximately 40% of the transition duration and set the *Progress* slider to “50”. Note that the symbol for a keyframe will appear next to Progress .
7. Move the position slider even more to the right, to about 60%. Again adjust the *Progress* slider to “50” and note the .
8. Finally move the position slider to the far right - the end of the transition. Change the progress value to “0”.
9. Play back the transition by clicking *Play*. The iris opens up to 50%, stops for a short while and then closes again.
10. If you want, you can save your effects animation by clicking on the *Save* button. Enter a name and click *OK*. A new icon will appear in the preset list.

## Picture-in-Picture Pro RT



The Picture-in-Picture Pro RT transition offers you the possibility of displaying one picture within another and to “animate” it with additional effects such as rotation, zoom, border, shadow and opacity.



Keyframes can be set for all the parameters of the Picture-in-Picture Pro RT effect.

After you have opened the “Picture-in-Picture Pro RT” transition, you can adjust the following settings:

### Coordinate

Enter the X and Y position for the Picture-in-Picture Pro RT. The center position is at “0 / 0”.

The picture can also be moved in the preview window directly by dragging the red dot with the mouse. When holding down the **<Shift>** or **<Ctrl>** keys the movement of the mouse can be restricted to the X and Y directions respectively.

More exact positioning can be achieved by direct entry in the X and Y fields or by using the arrow keys on the keyboard.



For all settings, if an input field has been selected with the mouse, the value of the field can be changed using the arrow keys, the mouse wheel and by direct entry from the keyboard. An entry is completed by pressing **<Enter>**.

### Rotation



You can set the rotation around the Z axis either using the knob or via the input fields for *Number of revolutions* and *Angle*.

<b>Size</b>	Adjusts the size of the picture.
<b>Shape</b>	These controls adjust the shape of the corners, the border width and the border color. If you want no border, set the border width to “0”.
<b>Border width</b>	
<b>Border color</b>	
<b>Edge smoothing</b>	<p>The slide control for the edge smoothing works differently in the Picture-in-Picture Pro effect:</p> <ul style="list-style-type: none"> <li>♦ <i>Colored border</i> If you have specified a colored border (<i>Border width</i> of 1 and above), the <i>Edge smoothing</i> settings affect this border. The higher the value, the more the edge becomes blurred towards the outside, but it will remain well-defined towards the inside.</li> <li>♦ <i>Colored border with shadow</i> If you have specified a colored border and a shadow, the values set also influence the shadow. The higher the value, the more transparent the shadow becomes towards the outside.</li> <li>♦ <i>No border</i> If the Border width is “0”, the <i>Edge smoothing</i> parameter determines the softness of the edge of the video window. The higher the value, the more the edge becomes blurred towards the inside.</li> </ul>
<b>Shadow</b>	<b>Shadow</b> (Offset, Opacity, Direction)
	<p>To control the shadow of your picture, you can change the parameters for the offset, opacity and direction of the shadow. Individual keyframes can also be set for these parameters. In this way, the shadow can be made to wander around the object or the shadow opacity can change during the course of the effect.</p> <p>If no shadow is to be used, make sure that the shadow offset is set to zero.</p>



**Note:** The Picture-in-Picture Pro RT effect is also available as a filter. This is useful if you want to apply picture-in-picture to a video clip in track 2 or above. Not all features are available in the filter version of the Picture-in-Picture effect.

<b>Setting up the Picture-in-Picture Pro RT effect</b>	<p>If you want to create a Picture-in-Picture RT effect, please proceed as follows:</p> <ol style="list-style-type: none"> <li>1. First drag two video clips onto the timeline, one each onto video track 1A and 1B. Trim and move them so that they start at the same time.</li> <li>2. Now drag the Pinnacle Picture-in-Picture Pro RT effect to the transition track between the two video clips.</li> <li>3. Double-click on the transition. The effects dialog opens.</li> <li>4. Change the <i>Size</i> setting to 50.</li> <li>5. Select 60 for <i>Shape</i> to round the corners.</li> </ol>
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6. Add a 10 unit wide green border with *Border width* and *Border color*.
7. Set the *Shadow opacity* to 75 and the *Shadow offset* to 50.
8. Change the *Shadow direction* to 45 degrees. Turn the knob left for this.
9. Set *Edge smoothing* to 25. Note that this influences both the green border and the shadow.
10. View the transition by clicking *Play*. If you want to see your original clips, ensure that the  button is activated.

**Adding animation** If you want to animate your Picture-in-Picture Pro RT effect, please proceed as follows:

1. If you have not already done so, then drag two video clips onto the time bar, one each onto video track 1A and 1B. Trim and move them so that they start at the same time.
2. Now drag the Pinnacle Picture-in-Picture Pro effect to the transition track between the two video clips.
3. Double-click on the transition. The effects dialog opens.
4. Activate keyframing.
5. If you are not at the beginning of the effect, move the position slider to the start of the transition (i. e. the far left).
6. Drag the “Picture-in-Picture Pro RT” away from the center and into the lower left-hand corner by using the red dot. Alternatively, enter “-25”, “-25” for the X and Y coordinates under *Position*. Confirm each entry with <Enter>.



Ensure that the keyframing symbol  is turned on for every parameter that you changed!

7. Leave the remaining parameters unchanged and move the position slider to the last frame of the transition (i. e. the far right).
8. Change the following parameters: *Shape* to “100%”, *Size* to “30%” and *Position* to “35”, “35”.
9. View the changed effect by clicking *Play*. If you want to see your original clips, ensure that the  button is activated.

Experiment with the other parameters such as shadow, opacity, rotation etc. You can set a keyframe at any point in the transition and change the parameters to achieve more complex animations. When finished, you may save your animation as a preset by clicking on *Save*.

## Gradient Wipe RT

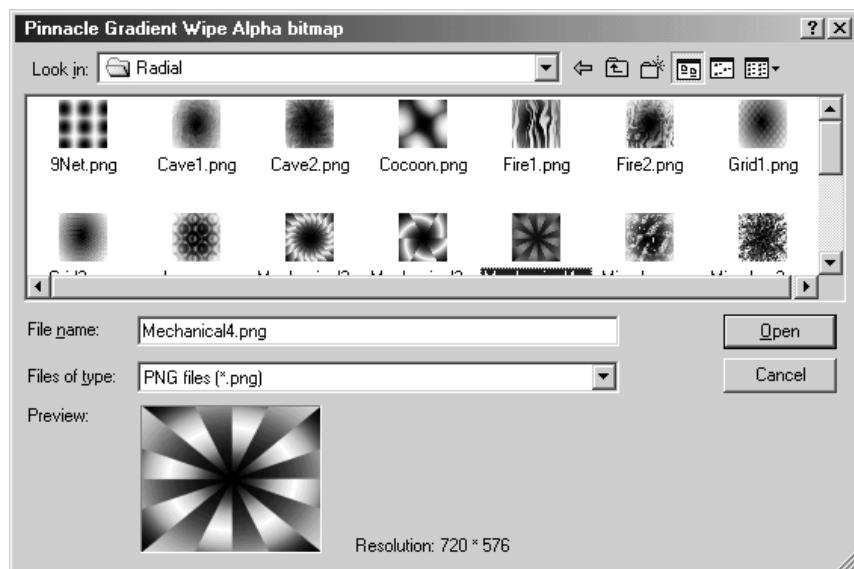


In addition to some of the parameters you have seen before, the Gradient Wipe RT transition allows you to define the effect by choosing one of over 400 Alpha Magic FX gradient wipe bitmaps.

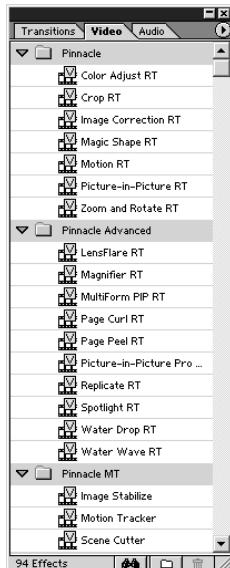


These gradient wipe bitmaps contain information about the progress of the effect as different scales of gray. You can create your own transitions by producing your own PNG or BMP files or modifying already existing ones. You will find more detailed information on Alpha Magic FX in the Chapter "Alpha Magic FX" on Page 146 in this user manual.

If you use some of the Alpha Magic FX bitmaps very often, you can save the entire transition as a preset by clicking on the *Save* button.



# FILTERS



In addition to the transitions, the Pinnacle folder **Pro-ONE** includes the following real-time filters:

- ◆ Color Adjust RT
- ◆ Crop RT
- ◆ Image Correction RT
- ◆ Magic Shape RT
- ◆ Motion RT
- ◆ Picture-in-Picture RT\*
- ◆ Zoom and Rotate RT

Under “Pinnacle Advanced” you will find the filters:

- ◆ LensFlare RT
- ◆ Magnifier RT
- ◆ MultiForm PIP RT
- ◆ Page Curl RT\*
- ◆ Page Peel RT\*
- ◆ Picture-in-Picture Pro RT\*
- ◆ Replicate RT
- ◆ Spotlight RT
- ◆ Water Drop RT
- ◆ Water Wave RT

The following filters can be found under “Pinnacle MT”:

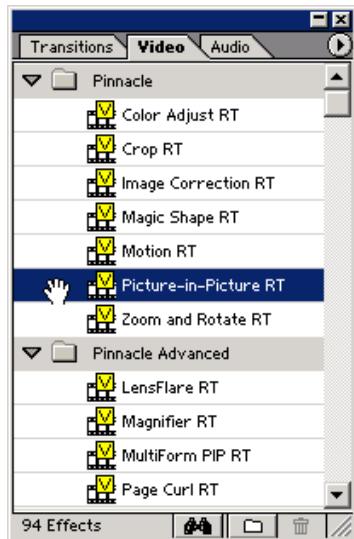
- ◆ Image Stabilize
- ◆ Motion Tracker
- ◆ Scene Cutter



The filters marked with a \* are also available as transitions. However, transitions can only be used in the transition track between Video 1A and 1B. Filters can also be applied to video on the tracks 2 and above.

All **Pro-ONE** filters run in real time and can also be used in some combination with other effects and still play in real time. Read the chapter “Pinnacle **Pro-ONE** & Real Time” on Page 89 for more details on what plays in real time and what requires rendering.

The filters are employed by dragging them onto a clip in the timeline window.



If you use the Pinnacle filters “Motion RT”, “Page Curl”, “Page Peel”, “Picture-in-Picture Pro RT” and “LensFlare RT”, “Magic Shape RT, or “MultiForm PIP RT” on media in tracks 2 and above, then you should also set transparency on the clip so that the background is visible. To do this, click the clip with the right mouse button and select *Video Options* and then *Transparency*. Choose a *Key Type* of *Alpha Channel* for video clips and stills. TitleDeko RT titles will set their transparency automatically when placed onto the timeline.

The functionality of the filters that are not available as transitions is explained in more detail below:

## Color Adjust RT

(This filter works in real time with video sequences, but not with bitmaps and titles.)

The Color Adjust RT filter allows you to adjust brightness and contrast for each of the three primary colors: red, green, blue.

## Crop RT

With this filter, parts of the video sequence are cut away and the remainder of the picture is scaled so that it fills the screen.

## Image Correction RT

(This filter works in real time with video sequences, but not with bitmaps and titles.)

With this filter you can change the brightness, the contrast and the color saturation. Here too, the settings can be keyframed (animated over time) for interesting effects like fade-to-white.

## Magic Shape RT

The Magic Shape RT filter allows a clip from your video sequence to appear over a background. You can define the shape of the clip and the background color by means of different parameters. If you create a second sequence in an additional video track, the clip can be seen at the same time as this sequence.

If you want to use a square or a circle, please make sure that you choose a 3:4 ratio for the size (Size X = 15, Size Y = 20, Size X = 30, Size Y = 40, ...).

You can create a star by dragging the value of the slider for *Inner radius* below 100.

You can also determine the color and the transparency of this clip.

Please note that *Alpha Channel* must be set as the key type under *Transparency* in the *Effects* window.

## Motion RT

The Motion RT filter may be used for the animation of titles, and to position a video clip in 3D space.

Motion RT allows objects to be positioned, scaled and rotated in the X, Y and Z direction. In addition, you can also specify the opacity and the edge smoothing. Animation through keyframing is of course possible and works very similar to the Picture-in-picture transition.



## Zoom and Rotate RT

With this filter you can zoom and rotate the contents of your video clip.

You can specify the center point, the size (i. e. zoom factor) and the angle of rotation. All parameters can be animated over time using keyframing.

A typical application for Zoom and Rotate is to crop off unwanted edges from your video clips.



Note that the parameters Size and Rotation are not independent of each other. If you rotate, some amount of zoom will occur to ensure that entire video frame is filled with the clip image.



## **Lensflare RT**

This filter simulates the light reflection, which occurs when bright sunlight falls on the lens of a camera. You can make various adjustments to this filter by means of parameters such as intensity, radiation type or reflection intensity.

## **Magnifier RT**

If you apply this filter to your video sequence, this will be played back as if viewed through a magnifying glass. Parameters such as size, position or refraction can be adjusted.

## **MultiForm PIP RT**

Multiform Picture-in-Picture RT allows you to make a second video "show through" the sequence in a non-rectangular form. Unlike the Magic Shape RT filter, not just a part but the complete video sequence appears in the transition.

The parameters in the dialogue box are the same as those for the Magic Shapes.

Please note that *Alpha-channel* must be set as the key type under *Transparency* in the *Effects* window.

This filter is particularly effective if you use it in conjunction with the Motion Tracking filter. In this case, the clip from the sequence moves along the movement path of the second video sequence.



To do this, the "Motion Tracker" filter must be used and the *Use Motion Tracking* button must be activated.

For more information, compare the description of the Picture-in-Picture Pro RT transition on Page 72.

## **Replicate RT**

If you use this filter, instead of being played back in one window, the sequence will be played back in several windows arranged side by side and above one another.

## **Spotlight RT**

The parameters of the Spotlight RT filter are similar to those of the Magic Shapes RT and the Multiform Picture-in-Picture RT filters.

In addition to their features, here you have the option of superimposing a spot on the video sequence and of defining its offset.

Along with the color of the selected clip from the sequence, you can also define the color of the surroundings of the clip.

## **Water Drop RT**

With this filter, you create the effect of a water drop, the shape of which you can define by means of several parameters.

## **Water Wave RT**

The Water Wave RT filter creates a wave, the frequency and direction of which you can change.

## **Image Stabilize**

Many digital cameras have an image stabilizing function. However, if you have forgotten to switch this on or if the result is not satisfactory, the quality of your video material can be improved with the Image Stabilize. Unwanted movements, “shakes” or jerky panning shots can be smoothed out using this filter.

The Image Stabilize first performs an analysis of the entire clip. It tries to determine camera movement through advanced techniques such as motion tracking and edge detection. This information is then used to compensate for the camera movement by zooming into the clip slightly and moving the window against the clip movement.

If the clip contains pans or zooms, the Image Stabilize attempts to detect them so that they are not “stabilized away”. Instead, in many cases a pan will get smoothed out and look even better.

Video material with scenes containing clear edges and well structured objects, lots of details and easy to track objects are particularly well suited to stabilization.

But the image stabilizer cannot do magic. With video material containing rapid movements, poor picture definition or low contrast or which are lacking well-defined objects that can be tracked, stabilizing can lead to poor results.

Also, the Pinnacle Image Stabilizer may not always recognize pans and zooms or it may track objects erroneously when they turn or the lighting changes drastically. And finally, zooming into the clip for compensation will result in a slight loss of image quality. This may or may not be noticeable, depending on the contents of your clip.

## **Using the Pinnacle Image Stabilizer**

A new feature of the Image Stabilizer is the option to choose a clip for analyzing the motion of the video. In this regard, you can shift and change the size of the yellow frame in the video window directly with the mouse or you can use the appropriate slider. In this way, you can exclude objects that move independently in the foreground from the stabilizing.

The zooming-in can also be controlled by means of the Size slider.

Drag the Pinnacle Image Stabilizer onto a video clip in the timeline. A dialog will open automatically and the analysis will start. You will see the clip and some bright green markers that show motion tracking of points and edge detection.

In the position slider, you will also see a progress bar. When it reaches the end, the analysis phase is completed and you can close the dialog. The compensation of camera movement will now occur in real time when you play the clip in the timeline.

If you apply more edits to your project, you may have to run the analysis phase again—this is indicated by a red bar at the top of the timeline window. Do this by selecting the clip and clicking on *Image Stabilize Setup* in the Premiere Effects Control palette.



To compare the result with the original video, use the “Picture-in-Picture” function or the “Clock” to view both videos – with and without filter – side by side.

## Motion Tracker

The Motion Tracker filter can track the position of an object in a video clip. The tracking information can then be used in various other effects such as *Magic Shape RT*, *Multiform Picture-in-Picture RT* or *Spotlight RT* as well as many transitions. The center of the effect will then move as if it were “attached” to the object in the video clip.

Motion Tracking is done by first defining a reference frame in the video clip. Then, a point in this reference frame is selected by positioning a crosshair cursor. Now, the motion tracking process can be started. Once it is finished, the track will be displayed. It is now available in other effects that are placed in the same area of the timeline.

Differently colored bars at the bottom of the video window indicate the quality of the tracking: “green” corresponds to “very good”, “red” means “no tracking possible”. Please note that an object can only be tracked as long as it is visible.

The Motion Tracking process works best when the object to be tracked is clearly distinguished from the background or has a visible edge or corners.



If you have already applied other filters to the sequence, these should be deactivated in the *Effects* window before tracking, as they will slow down the tracking process.



You can switch the display of the movement path on or off with this button.



This button shows or hides the quality bargraph at the bottom of the video window.

If small, red bars indicate that it has not been possible to track the object accurately, you should try selecting a different point for tracking.

-  Click on this button to define a new *reference frame* for the Motion Tracking. The crosshair cursor will then be displayed. Note that it is possible to set several reference frames.
-  After positioning the crosshair cursor, the *Start Motion Tracking* button will start the tracking process.
-  With this button, you can delete individual reference points.

### Application example

In this example, you will use the *Motion Tracking RT* filter to attach a magnifying lens to an object.

To do this, proceed as follows:

1. First, drag a suitable video clip for the motion tracking into the Timeline.
2. Now apply the *Motion Tracking RT* filter from the *Pinnacle MT* folder to this video clip.

The *Motion Tracking RT* window will open.

3. With the slider, select a frame of the video clip in which the object to be tracked is clearly visible.

-  4. Click on the *Set reference point* button. A crosshair cursor will appear in the video window.
- 5. Now drag the crosshair cursor with the mouse onto the object to be tracked. The frame around the crosshair cursor can be changed in size using the mouse - this marks the search radius for the motion tracking.
-  6. Click on the *Start Motion Tracking* button. You will see the track in the video window and also a quality bargraph at the bottom. Wait for the tracking to finish. If the bargraph shows red areas or if you notice that the tracking got lost at some point, then you may want to try to set a second reference point and then re-track by clicking *Start Motion Tracking*. You can always delete reference frames again by clicking *Delete*.
- 7. When the motion tracking is complete, close the dialog with *OK*.

The motion of the point is now available as a *motion path* and can be used by other effects at this point in the Timeline window.

8. Apply the *Magnifier RT* filter from the *Pinnacle Advanced* folder to the same video clip in the Timeline.

The *Magnifier RT* dialog will open automatically.

-  9. Click the *Use Motion Tracking* button. The magnifier will now follow the motion path. Note that this button is only visible if there is a motion track at this point in the timeline.
- 10. You may now adjust other parameters of the effect, such as size. It is also possible to turn on keyframing (cf. application example on Page 72) in order to combine motion tracking with additional animation. Note that changing the position of the magnifier will still be possible, but it is now relative to the motion track.

## Other examples

Motion tracking can also be used to move a title or an image with an object in a video clip. In order to do this, first apply the *Motion Tracking RT* filter to a clip in the timeline and track an object as described above. Now place a title or an image in track V2 or higher above the video clip. Make sure to turn on transparency if an image is used. Drag the *Motion RT* filter onto the title or image. Click on *Use Motion Tracking* in the *Motion RT* dialog and then adjust the position and size as desired.

## Scene Cutter

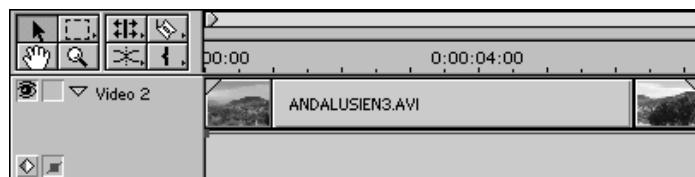
If you have digitalized video sequences that are made up of several scenes, you can "cut" the individual scenes with this filter and divide them up into individual clips. The scene cutting runs automatically. When the scene cutting is complete, you can define the minimum and/or the maximum length of the scenes. The Scene Cutter filter automatically creates a Storyboard file.

For the options available when working with storyboards, please refer to the associated Adobe Premiere User Manual.

## Opacity and Transparency Effects

### Video Opacity rubber band

If you place a still image, title or video clip onto track 2 or above, the opacity of this media may be adjusted using the fade control, also known as a rubber band. If this rubber band is not visible, click on the triangle next to the word Video.

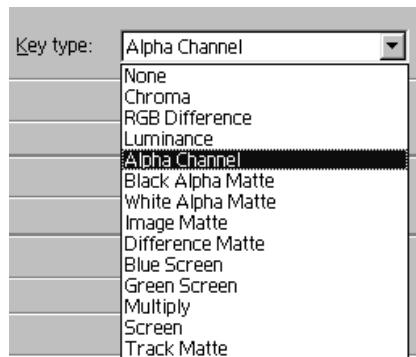


The rubber band is adjusted by dragging it at any point with the mouse. With **Pro-ONE**, the Premiere fade control will be performed in real time.

### Transparency: Alpha Channel Alpha Matte

Furthermore, Pinnacle supports the transparency modes "Alpha Channel", and "Black Alpha Matte" in real time when they are being used on still images and titles.

Click with the right mouse button on the title or the graphic in the overlay track and choose the commands *Video Options* and *Transparency* from the context menu. Select either *Alpha Channel*, or *Black Alpha Matte* as the *Key type*.



♦ *Alpha Channel*

Choose *Alpha Channel*, when your material already uses an alpha channel, such as TitleDeko RT titles.

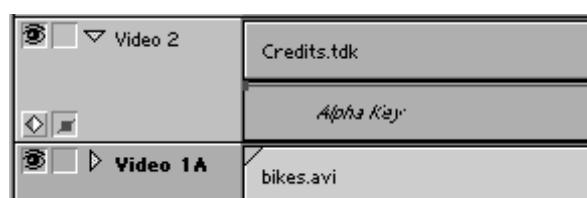
♦ *Black Alpha Matte*

Use this option if, for example, the title appears on a black background. During the overlay, this black background will be made “transparent”.

♦ *White Alpha Matte*

Use this option if the title appears on a white background. During the overlay, the white background will be made “transparent”.

Setting an alpha channel is not necessary with titles that were created with Adobe Premiere or with TitleDeko RT, as these automatically activate the correct transparency when you place them onto the timeline.



If you use the Pinnacle filters “Motion RT”, “Page Curl”, “Page Peel”, “Picture-in-Picture Pro RT” and “LensFlare RT”, “Magic Shape RT”, or “MultiForm PIP RT” on media in tracks 2 and above, then you should also set transparency on the clip so that the background is visible. To do this, click the clip with the right mouse button and select *Video Options* and then *Transparency*. Choose a *Key Type* of *Alpha Channel* for video clips and stills. TitleDeko RT titles will set their transparency automatically when placed onto the timeline.

## Speed

**Pro-ONE** will play clips slower or faster in real time. To set this effect on a clip, right click it in the timeline and select *Speed*. Now enter either a new rate as a percentage or a new duration.

The maximum speed that can be played in real time without dropping frames depends on a number of factors, for example the speed of your hard disks and the complexity of the timeline at this point. Generally, a speed of 300% or lower should always work in real time. However, if you arrange several clips with different speeds on top of each other, you should make sure that the sum of all speeds at any given point in the timeline does not exceed 300%.

If you want to replay the video sequence "backwards", enter a negative value. Here too, percentages up to -300% can be executed in real time.

If you do see dropped frames during playback, then please use the Pinnacle Render Timeline (*File, New, Pinnacle Render Timeline*) to force rendering of the affected area.

For rates below 100% ("slow motion"), **Pro-ONE** interpolates the appropriate field of a frame for highest image quality.

## KEYFRAMING: ADDITIONAL INFORMATION

### Keyframing control for individual parameters

Each keyframable parameter of a transition or filter shows an indicator that also allows you to turn keyframing on or off for each keyframe of the animation individually.

An example to illustrate what this feature may be used for: take a Picture-in-picture Pro effect that has five keyframes which determine the size and position of the video window. If you now want to change the border color, you can do this by moving the position slider to the start and then adjusting the parameter *Border color*. Although there are four more keyframes in the animation, the border color will not change at these points as long as the Border color keyframe selection remains inactivated. In summary: each parameter has its own keyframe. If, for example, you set a keyframe for the position, this does not set a keyframe for the other parameters of a transition at this point. You must set a keyframe for every value required. You can see whether you have set a keyframe for a certain parameter by this symbol .

# PINNACLE EFFECTS KEYBOARD SHORTCUTS

## General

<Shift> + <Q>	Prev. marker
<Shift> + <W>	Next marker
<Shift> + <A>	Prev. keyframe
<Shift> + <S>	Next keyframe
<Shift> + <1>	Prev. frame
<Shift> + <2>	Next frame
<Shift> + <C>	Copy keyframes
<Shift> + <X>	Cut keyframes
<Shift> + <V>	Paste keyframes
<Shift> + <Del>	Delete keyframes
<Shift> + <I>	Set in point
<Shift> + <O>	Set out point
Space	Play / stop

## Preview

<Ctrl> + Mouse	Moves into X direction
<Shift> + Mouse	Moves into Y direction

## Slider

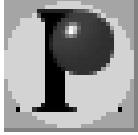
Cursor left	- 1
Cursor right	+ 1
Cursor down	- 1
Cursor up	+ 1
Minus	- 1
Plus	+ 1
Page down	- 10
Page up	+ 10

## Wheel

Cursor left	- 1
Cursor right	+ 1
Cursor down	- 1
Cursor up	+ 1
Minus	- 360
Plus	+ 360
Page down	- 10
Page up	+ 10

## Edit

Cursor left	Moves cursor in the edit area
Cursor right	Moves cursor in the edit area
Cursor down	- 1
Cursor up	+ 1
Minus	Changes the directory
Plus	Will be ignored
Page down	- 10
Page up	+ 10
Enter	Will be ignored



# Chapter 10: Pinnacle Pro-ONE & Real Time

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## PINNACLE PRO-ONE REAL TIME

Pinnacle **Pro-ONE** delivers professional quality, high flexibility, and gives you all the effects you need—and it is a very productive video editing system. You can create complex video projects very quickly, and key to this productivity are the Pinnacle real time effects. The Pinnacle **Pro-ONE** effects engine gives you immediate, full quality playback even of sophisticated layered video effects.

This chapter summarizes the available real time effects, explains how even combined multi-layered effects can play in real time, and what can be done to make best use of the Pinnacle **Pro-ONE** video effects engine. It also gives information about real time audio effects.

### Creativity rule of thumb

Do what you want. Use the effects you want. If some parts of your projects need to be rendered—no problem, Pinnacle **Pro-ONE** includes a hardware-accelerated render engine. But whenever an effect you want to apply is available as Pinnacle real time effect, use it. This will greatly increase your editing productivity, giving you time for more creativity and better results.

### Real time rule of thumb

A segment of the timeline is real time playable if all the media in it are real time compatible, the number of media does not exceed the real time limits, all the effects are Pinnacle real time effects, and a few simple effects combination rules are fulfilled.

A real time segment will appear in the Premiere Monitor window and on the analog outputs immediately and in full quality when you play or scrub the timeline. This way, it can also be printed to an analog tape deck without any rendering process (or alternatively, in the case of **Pro-ONE RTDV**, to a digital tape deck).

When you are finished editing your project and want to output it to DV or other formats such as MPEG or RealVideo, then an export process that includes rendering is required.



**Pro-ONE** outputs real time effects exclusively to the analog output. For outputting on DV, all effects must first be rendered.

On the other hand, with **Pro-ONE RTDV**, the real time effects are available both on the analog and on the digital output.

## Real time compatible media

To be real time playable with Pinnacle **Pro-ONE**, all media on the timeline must be of one of the following formats:

### DV AVI clips

Pinnacle **Pro-ONE**-compatible DV AVI files, either captured or rendered by a video application or from another source. The clip's video standard, PAL or NTSC, must match the current Premiere project setting.

If you would like to use other video clips, you may import them into Premiere and put them into your project, but the affected segments will then require rendering. In many cases, a better approach is to put the clip into a new, empty project and then export it as a Pinnacle **Pro-ONE** DV AVI clip using the appropriate Pinnacle **Pro-ONE** preset. The resulting clip will then be real time playable in your project.

### Still images and titles

Still images of all formats that Premiere can import will play back in real time. For titles, both TitleDeko RT and the Premiere title application will create files that are real time playable. A still image or title may contain transparency information in the form of an 8 bit alpha channel, but only one of these may be used at any point in the timeline if real time playback is desired. Real time playback is only possible when, at every point in the timeline, a maximum of one still image or title with alpha channel is used.

Although still images of any resolution can be imported and used in Premiere, you will achieve the best quality if you scale them to the appropriate video resolution (720x480 for NTSC or 720x576 for PAL) before using them in Premiere. This can be done with Adobe PhotoShop LE, which is included on your Premiere CD.

## Real time effects

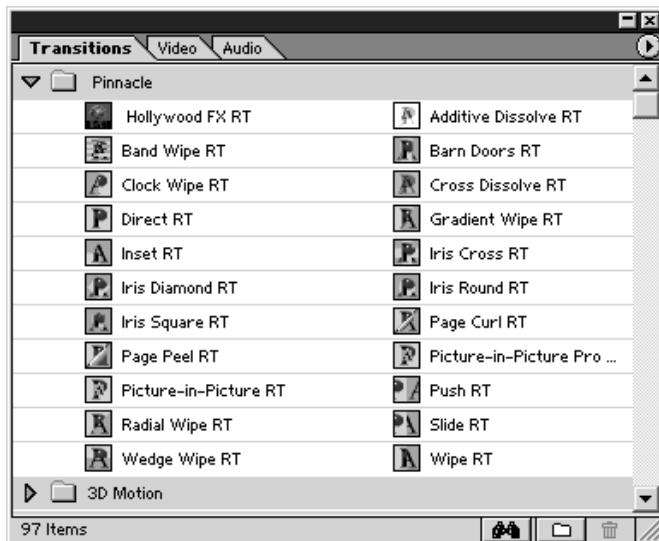
Pinnacle **Pro-ONE** includes two types of real time effects: transitions and filters.

Transitions are used in between two clips on the V1A and V1B tracks, they are located in the "Pinnacle" folder within the Premiere *Transitions* selection.

Filters, on the other hand, are applied to clips on the tracks V2 and above. These are stored in the "Pinnacle" and "Pinnacle Advanced" folders in the Premiere *Video* filter selection.

For details about using the Pinnacle effects and animating them by using keyframes, please see Chapter "Pinnacle Effects" as of page 63.

## Pinnacle Transitions



All Pinnacle transitions play in real time. They include the most frequently used video effects such as a cross dissolve, various iris shapes, wipes and page turns. Once placed on the timeline, a double-click will open a dialog with settings that allow variations of the transition, including animation of many parameters via keyframing. Many transitions also include predefined presets and the ability to save your own set of settings.

The two most powerful transitions are:

### **Hollywood FX RT**

The Hollywood FX RT transitions offers you more than 200 customizable 3D effects which all play in real time. You can get more Hollywood FX effects by joining Club Hollywood or upgrading to additional versions of the Hollywood FX products. Please see the Hollywood FX RT documentation for details.

### **Pinnacle Gradient Wipe**

The Pinnacle Gradient Wipe transition gives you access to the **Pinnacle Alpha Magic** set of more than 400 gradient wipe effects. There should be the proper wipe for almost every situation, and you can even create your own ones using Adobe PhotoShop. In addition, a variable amount of smoothness may be added to the edges of the gradient wipes.

## Filters

In many cases, filters are more powerful than transitions, because several of them may be placed onto a single clip. This is the reason why some effects like "Pinnacle Page Peel" are available both as a transition and a filter.

There are two categories of Pinnacle filters: "3D filters" that manipulate the clip in three-dimensional space and 'image filters' that change the look of the clip's images.

<b>Pinnacle 3D filters</b>	<ul style="list-style-type: none"> <li>♦ Crop RT</li> <li>♦ LensFlare RT</li> <li>♦ Magic Shape RT</li> <li>♦ Magnifier RT</li> <li>♦ Motion RT</li> <li>♦ MultiForm PIP RT</li> <li>♦ Page Curl RT</li> <li>♦ Page Peel RT</li> <li>♦ Picture-in-Picture RT</li> <li>♦ Picture-in-Picture Pro RT</li> <li>♦ Replicate RT</li> <li>♦ Spotlight RT</li> <li>♦ Water Drop RT</li> <li>♦ Water Wave RT</li> </ul>
<b>Pinnacle image filters</b>	<ul style="list-style-type: none"> <li>♦ Color Adjust RT</li> <li>♦ Image Correction RT</li> <li>♦ Zoom and Rotate</li> </ul>
<b>Pinnacle MT</b>	<ul style="list-style-type: none"> <li>♦ Image Stabilize</li> <li>♦ Motion Tracker</li> <li>♦ Scene Cutter</li> </ul>
<b>Pinnacle Picture-In-Picture</b>	<p>This filter makes a video appear in a small rectangle, superimposed above a background, which can be another video or a still image or title. With full keyframeable control of border and smoothness, this is a very powerful and flexible effect. Make sure to also set “Alpha Channel” transparency on the clip that you apply this filter to, so that the background remains visible. Two versions of the “Picture-in-Picture” are included with <b>Pro-ONE</b>. The standard version is located in the “Pinnacle” folder and it may be combined with many other effects and will still play in realtime. The “Pro” version in the “Pinnacle Advanced” folder includes advanced border and shadow adjustments, but it has more restrictions when it is used simultaneously with other effects.</p>
<b>Pinnacle Motion</b>	<p>This filter is perfect for animating titles and includes many presets for this application. The title will be transparent if Alpha transparency is applied to it in addition to this filter.</p> <p>Pinnacle Motion may also be used on video clips, where it allows rotation of the image around all three axis. In this case, “Alpha Channel” transparency should be used so that the background is still visible.</p>
<b>Pinnacle Image Correction</b>	<p>This is a filter to adjust brightness, contrast and color saturation of your video clips. To make it play in real time even if it is combined with other filters, you should use the ordering rule described below and move it to the top of the filters list in the Premiere Effect Controls window. In most cases, this filter cannot be applied in real time to bitmaps.</p>

### **Pinnacle Zoom & Rotate**

This filter allows you to zoom into your clip image at any position and to rotate the clip. It is very useful to hide unwanted parts of your clips, or to create special effects like image pans. To use it in real time combined with other filters, do it the same way as with “Pinnacle Image Correction”: Move it to the top of the filters list.

### **Pinnacle Image Stabilizer**

This unique filter detects and corrects unwanted camera movements of your clips that can occur when shooting without a tripod. It will also smooth out zooms and pans. When applied, the clip will be analyzed in near real time – please wait for this to finish before closing the dialog. After the analysis, the clip will play in real time with the stabilization.

Certain combined uses of the Pinnacle Image Stabilizer will alter the real time playback capability of the filter. For example, if both “Pinnacle Image Stabilizer” and “Zoom and Rotate” are used on the same clip, then rendering is required.



The Pinnacle **3D** filters will allow you to see the background only if you also apply **transparency** to the same clip. Use “Alpha Channel” for a video clip, still image, or TitleDeko RT title.



The Pinnacle **image** filters must be **on top of the filter list** in order to play in real time. This can be achieved by applying them **before** a 3D filter such as Pinnacle Picture-In-Picture or by dragging them to the top, above the 3D filter.

## **Other real-time features**

In addition to real time transitions and filters, **Pro-ONE** includes three more, powerful real time capabilities.

### **Speed Change**

The playback speed of any clip in your project may be changed by using the Premiere Speed Change dialog. The most common application for this is playback in slow motion. Speed changes above 300% may have to be rendered, as some hard disks will not be able to read a clip this fast.

### **Rubberband Transparency**

On the tracks V2 and above, you may change the transparency or create a dissolve of a video clip, title or still image by using the Premiere rubberband and the result will play in real time.

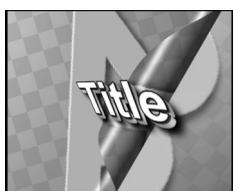
### **Transparency**

The transparency modes “Alpha Channel”, and “Black Alpha Matte” are also supported in real time. Note that only one title or still image with alpha information in the file may be used at any one point in the timeline for real time operation.

## Combination of real time effects

Unlike many other video editing products, Pinnacle **Pro-ONE** not only allows just one effect in real time. Many transitions and filters can be combined in one segment of the timeline or even on one clip and the result will still play in real time.

### Scenario 1



Example: You can easily apply a change to the playback speed and an image correction / color adjust filter to two video clips and still implement a Pinnacle transition between these clips. It is also possible to insert a title with transparency properties. Even the animation of this title using the "Motion RT" filter will produce a segment that can still be played back in real time. This is in no way affected if the "Zoom and Rotate RT" filter is added to one clip and "Cut and Scale" is added to the other and all effects are varied individually via keyframes.



When adding filters, please be absolutely certain to first add the "Image Correction RT" / "Color Adjust RT" filter then the "Rotate and Zoom RT" / "Cut and Scale" filter and only then the remaining filters.

When changing the speed, please note that the range in which the clip can be played back in real time lies between -300% (backwards) and +300%. You will find details in the section on "Speed" on Page 87.

### Titel created with TitleDeko

- + Filter Zoom and Rotate
- + Filter Motion
- + Transparency (Alpha Channel)

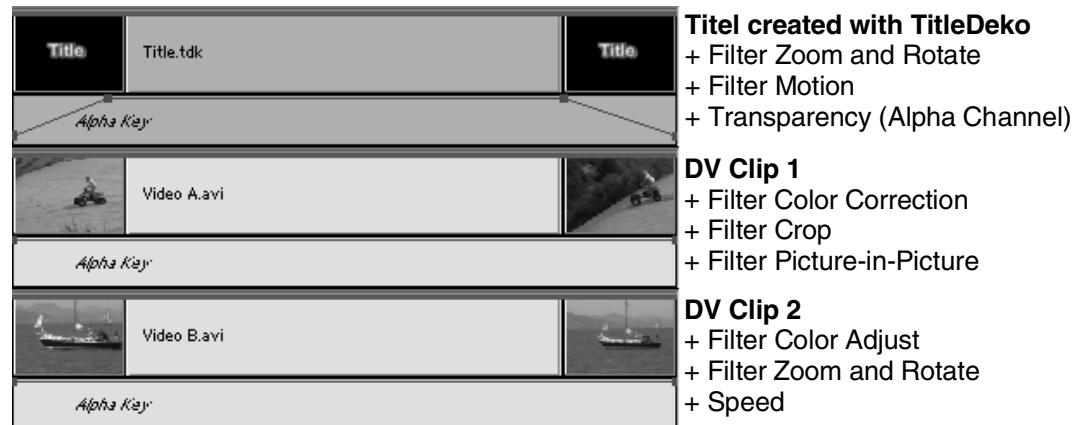


## Scenario 2



Create two clips in video tracks V2 and V3 and a title in V4. The title automatically contains “Alpha Channel” as transparency. Set the transparency of the clips in V2 and V3 to “Alpha Channel”. Associate the “Image Correction RT” filter with DV clip 1 and the “Color Adjust” filter with clip 2. Add the title and the “Zoom and Rotate RT” filter to clip 2. Add the “Crop RT” filter to clip 2. Now drag the “Picture-in-Picture RT” filter onto clip 1 and define a different speed for clip 2. The result can still be played back in real time.

Pay attention here to the order in which you add the filters!



If you exceed the real time capabilities of **Pro-ONE**, then the segment will be marked with a thin red line near the top edge of the timeline window. When you play this segment, **Pro-ONE** will sometimes still be able to fully show it, but frames may be dropped. In other cases, the segment is so complex that **Pro-ONE** can only play one video of the effects combination. If this happens, a small “x” will be superimposed onto the image to warn you that you are seeing only an approximation of the timeline content.

For perfect playback of an area that is marked red, rendering is required. Do this by setting the Premiere work area (the yellow bar) so that it covers the segment and then pressing <Enter>.

You may use up to three tracks of media for real time operation. Up to two tracks can contain video, in which case the third track can be a title or still image. Alternatively, you can use two titles or stills and one video clip. And finally, three titles or stills without a video clip are possible, too.

Pinnacle transitions may be used between video clips or titles/stills. On track V2 or above, you can place a third clip or title or still image and apply effects to it by using Pinnacle filters. This is particularly useful for titles, which may be animated, for example with the Pinnacle Motion filter, while using a transition at the same time.

There are no restrictions when changing the speed of a video clip or applying the Image Correction filter to it—you may still apply any transition or additional combinations of filters simultaneously.

There are of course limits to the real time capabilities of Pinnacle **Pro-ONE**. The following restrictions apply if you want your project to play in real time:

- ⚙ A video clip, still or title that is used in a transition cannot simultaneously have a 3D filter.
- ⚙ Only one 3D filter may be used per clip. Not more than two may be used for a segment. It may be necessary to render filters from the “Pinnacle Advanced” folder if they are combined with other effects.
- ⚙ If the “Gradient Wipe” transition is used between two clips, then a title or still image above the transition may be animated with the Motion filter, but not with the “Page Curl,” “Page Peel” or “Picture-in-Picture RT” filter.
- ⚙ If the “Image Stabilizer” filter is used on a clip, you cannot simultaneously use the “Zoom and Rotate RT” or “Crop RT” filter on the same clip.
- ⚙ If the Hollywood FX transition is used between two clips, then these clips must not also have “Zoom and Rotate RT” or “Crop RT” filters.
- ⚙ The “Gradient RT” transition cannot be used together with a title.
- ⚙ “Page Peel RT” or “Page Curl RT” are only allowed once per segment. This applies to both transitions and filters.
- ⚙ The use of the “Color Adjust RT” filter reduces the real time capabilities. Other filters or transitions used at the same time must be rendered if necessary.
- ⚙ Only one title or still image can have alpha transparency as part of the image, such as a title with transparency between the letters. However, you can still use transparency in conjunction with 3D filters such as “Motion RT” or “Picture-in-Picture RT” filter at the same time.

There is also a limit concerning titles and still images. As these are stored uncompressed on the hard disk, it takes some time to load them into the **Pro-ONE** hardware. If you try to make titles or still images too short and make them follow each other too closely, then the hard disk may not be able to keep up in reading them and the playback will stutter. As a rule of thumb, no more than two bitmaps per second can be played in real time.

## Real time audio effects

Premiere features a variety of audio effects that can be applied and played in real time. This audio processing does require system and CPU bandwidth and too many audio effects may result in stuttering. If this happens, try rendering the audio by using the command in the Timeline menu.



The Premiere audio mixer may occasionally cause stuttering on some systems. Make sure to close the audio mixer window before exporting your project to tape.



# Chapter 11: TitleDeko RT

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## WELCOME TO TITLEDEKO RT

### Introduction

TitleDeko RT is a plug-in program for Adobe Premiere . This plug-in is designed to work with your board. As an integrated title editor program, TitleDeko RT allows you to create professional quality titles and graphics quickly and easily. Titles can contain words, shapes, background colors, and photos or graphics imported from other programs. TitleDeko RT offers professionally developed Preset Styles for quickly making titles, along with virtually endless custom styling. You can modify titles for a variety of effects, such as titles that roll in vertically or crawl horizontally. You can also adjust the duration the title appears in your movie.

This chapter begins with a brief explanation of how titles are created, details the more advanced features, and then guides you through several examples of making and modifying titles.

The new features of TitleDeko RT are

- ♦ “Take” to video: press <F3> to monitor the title
- ♦ Type in context: have video in the background during typing (default)
- ♦ Full wide screen support (16:9) for titles.

### How Titles Are Created

TitleDeko RT appears in a separate window with its own user interface. It creates titles that are inserted in your Adobe Premiere project. You can also save titles separately to use in other Adobe Premiere movies.

You create the title in the Preview Area of the TitleDeko RT window. You type in text, apply a style, and complete it by resizing, repositioning, or rotating the text, and by adding shapes or pictures. When you’re done, save the title and press <F12>. The title is automatically inserted into the Adobe Premiere Project window. Titles and graphics are trimmed in Adobe Premiere. See the Adobe Premiere User Guide for complete instructions on trimming.

# LAUNCHING TITLEDEKO RT

You can launch TitleDeko RT from Adobe Premiere, or open it as a standalone application from Windows.

## Launching from Adobe Premiere

You can launch TitleDeko RT from the Main Menu Bar of Adobe Premiere, or in two ways from an existing Adobe Premiere project.

### Launching from the Adobe Premiere Main Menu Bar

Choose *File > New*, then click *TitleDeko...* .

### Launching from the Adobe Premiere Timeline

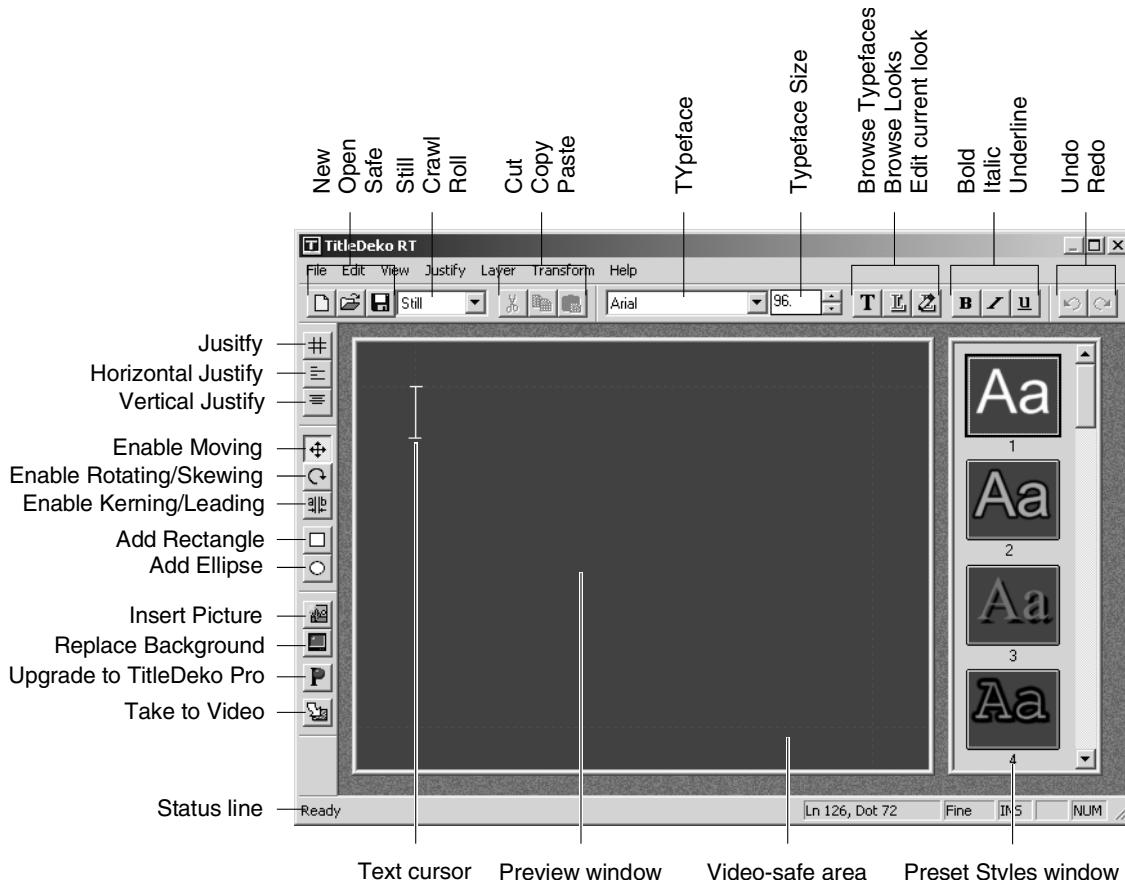
On the Timeline, double-click the title icon of an existing TitleDeko RT title.

### Launching from the Adobe Premiere Project Window

In the Project window, double-click the title icon of an existing TitleDeko RT title.

# THE TITLEDEKO RT USER INTERFACE

TitleDeko RT is a separate application with its own user interface that offers menus, windows and toolbars.



## TitleDeko RT Windows

TitleDeko RT windows follow standard Windows conventions—you can open, close, move and resize them.

## Menu Bar

The Menu Bar provides menus of commands and other choices (not shown in illustration). Frequently used commands have Toolbar buttons.

## Toolbars

Toolbars contain Tool Groups that can be “torn off” or rearranged.

## Preview Area

A Preview Area shows a “what-you-see-is-what-you-get” (WYSIWYG) view of your work, along with lines denoting a “video safe area” always visible in the final movie.

## Preset Styles

A Preset Styles window shows the style presets that can be applied to text and other objects. You can modify the Preset Styles and create new ones.

## Status Line

A Status Line provides information about the tool in use, text cursor coordinates, movement setting (Coarse or Fine), and so forth.

## Tool Functions

At the top and left of TitleDeko RT are Toolbars that offer fast access to frequently used TitleDeko RT functions. In addition, all functions can be selected via the menus. Frequently used functions also have keyboard shortcuts.

### New, Open and Save Files



These are standard Windows functions.

### Effect

#### Still, Roll, Crawl

Select an effect for the title. Choices include *Still*, *Roll*, and *Crawl*.

Choosing *Still* creates a title that appears on the screen, remains for a set duration, and disappears. Choosing *Roll* creates a title that rises onto the screen, moving from the bottom edge to the top. Choosing *Crawl* creates a title that moves onto the screen from the right and progresses to the left.



Rolls and Crawls are rendered in Adobe Premiere.

### Cut, Copy and Paste



These are standard Windows functions.

### Typographical Characteristics

#### Fonts

Before you can change typographical characteristics, select the text you want to change. Click the drop-down list arrows to choose a typeface and its size.



To preview the typeface before you select it, click the *Browse Typefaces* button, then choose the face you want from the browser window.



To make text bold, italic and/or underline, click the respective button.



### Look Browser / Edit Looks

#### Look Browser

Click the *Browse Looks* button to display a window that contains all the preset looks. Clicking on a specific look applies a set of appearance attributes to the selected object.



### **Edit current look**

Click the *Edit current look* button to modify the currently selected look. There are numerous fine adjustments that are explained in greater detail later.



### **Justify / Horizontal / Vertical justify**

Alignment browser tools are active depending on whether the selected object is text or a non-text object (such a circle). For example, you can right align a circle, but you can't kern it like text by spreading out the words and letters.



### **Justify**

Click the *Justify* button for a browser that gives you a fast way to align objects.

### **Horizontal and Vertical**

To change the horizontal or vertical alignment and/or justification of text characters, click the respective button and choose the type of alignment you wish. Note that some alignments also work on objects.

### **Undo / Redo**

Click *Undo* to undo the last action. *Undo* will undo multiple levels of action, limited only by available memory. *Redo* undoes the last *Undo*.



### **Enable Moving/Resizing, Enable Rotating/Skewing**



Depending on the object handle selected, these controls have different functions. Move the cursor over the object. The cursor shows the active function.

### **Enable Kerning/Leading**

**Kern Text** Spreads text lines vertically (leading), or adds/removes space between individual letters and words horizontally (kerning).



### **Add Rectangle, Ellipse**

Click to add these shapes.



## Insert Picture

Click to insert an image from your hard disk or other media. Pictures are treated like other objects in that you can move, scale and size them. You cannot, however, skew or rotate a picture.



## Replace Background

Allows you to make adjustments to the color, opacity and other details of the background.



## Update to TitleDeko pro

Via this button you may order the TitleDeko pro version.



## Take to video

If you want to output the title with background to an analog monitor connected to the blackBOX, click this button.



## Additional Menu Commands

### Coarse / Fine

#### *Cursor Movement*

From the main menu bar, select *Transform > Coarse* or *Fine* to change the increments used in cursor movement.

### Bring to Front / Send to Back

*Layer > Bring to Front* places the selected layer in front of all other layers.

*Layer > Send to Back* places the selected layer behind all other layers, but in front of the background.



If you select only a portion of the layer contents, TitleDeko RT will still move the entire layer.

### Bring Forward One Layer / Send Back One Layer

*Layer > Bring Forward One Layer* moves the selected layer one layer forward.

*Layer > Send Back One Layer* moves the selected layer one layer backward.

## Find, Find Next and Replace

### *Find and Replace*

From the main menu bar, select *Edit > Find, Find Next or Replace* to perform text search and replace functions analogous to those of a word processor.

## Accept title, return to Adobe Premiere/ Cancel title, return to Adobe Premiere

*File > Accept title, return to Adobe Premiere* accepts the title and returns you to Adobe Premiere. If you have not yet saved the title, this command will first allow you to save, then return to Adobe Premiere. The <F12> function key is a handy shortcut for this command.

*File > Cancel title, return to Adobe Premiere* rejects the title and returns you to Adobe Premiere. Use this command when you do not want to save changes to the title.

## Delete and Select All

### *Selection*

From the main menu bar, select *Edit > Delete* or *Select All*. These functions are analogous to those of a word processor.

# SELECTING TEXT AND OBJECTS

TitleDeko RT is character-oriented. Consequently, text selection feels a little different than in other software, particularly word processors. The unique ways TitleDeko RT selects text are expressly tuned for editing titles, and offer a great deal of graphical flexibility, unlike a word processor. For example, you can select a single character and resize it, skew it or even rotate it.

Type several lines of text, then try the following selection methods until text selection seems comfortable.

### To select all text characters or objects:

- Choose *Select All* from the *Edit menu*.

### To select all text:

- Click anywhere on the text field then press <Ctrl> + <A>.



A selection shaded selection box with handles appears around the text.



If you click on the red dashed line indicating the video-safe area, a similar looking box appears. However, this box is larger and surrounds the entire image. You have selected the image area, not the text.

### To select a single word or object:

Do one of the following:

- Double-click the word or object.
- Or, use the arrow keys to move the cursor to the beginning or end of the word, then hold <Shift> and press the right or left arrow.

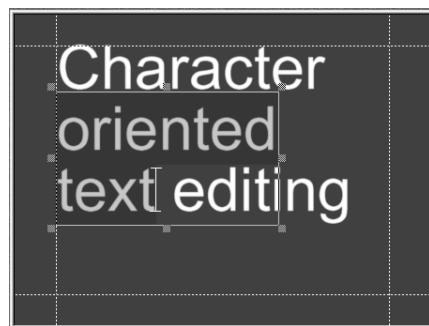


A shaded selection box with handles appears around the word or object.

### To select a random section of text spanning more than one line:

Do one of the following:

- Drag across, then down or up the text, or diagonally.
- Position the cursor at the beginning or end of the desired selection area (the <Tab> key moves the cursor from one word to the next). Then press arrow keys while holding the <Shift> key.



Selected text within a block is shaded as shown in the above illustration. A shaded selection box with handles surrounds the entire box.

### To deselect text or objects:

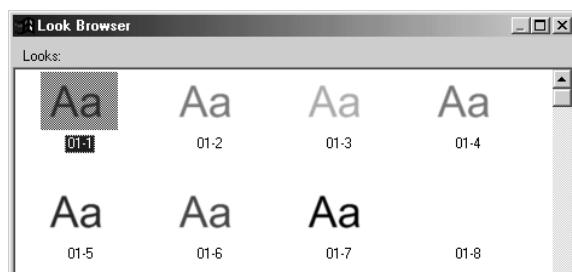
- Click anywhere outside the selected area or press the <Esc> key.

# FORMATTING TEXT AND OBJECTS

You can format text and objects by choosing a style with preset attributes, or manually by adjusting attributes such as boldness, size, typeface and spacing.

## Applying Looks to Text and Objects

One of TitleDeko RT's most powerful features is its library of preset looks. Looks include color, texture and transparency attributes that are applied to the face, edge and shadow of objects. With a click of the mouse you can instantly change the appearance of an object from glowing purple neon to blue metallic.



Click the *Browse Looks* button. The *Look browser* graphically displays the looks you can pick. Just double-click the look you want. Details of using and modifying looks are explained in a later section of this book.

## Individually Adjusting Text Attributes

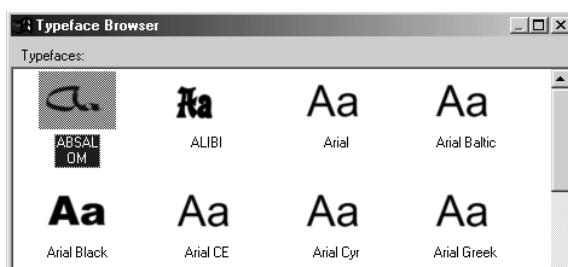
**Fonts** **To change the typeface:**

Do one of the following:

- Click the down arrow and choose the typeface from the drop-down list

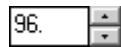


- Click the *Browse Typefaces* button for a graphical display of typefaces, and double-click the one you want.



### To change the point size of text:

- Type a new value into the *Size field* or click the arrow buttons next to the *Size box* to increase or decrease size.



### To change text to bold, italic and/or underline:

- Select the text to be changed, then click the appropriate toolbar button , or use the shortcuts

**B** (<Ctrl> + <B>)

**I** (<Ctrl> + <I>)

**U** (<Ctrl> + <U>).

## Justifying Text

Justification operates differently in a video character generator than in a word processor. TitleDeko RT uses justification controls to position all objects, including rectangles and ellipses, as well as text. You can *Justify* objects via menu selections, buttons, keyboard shortcuts and keypad shortcuts.

### Justification Buttons

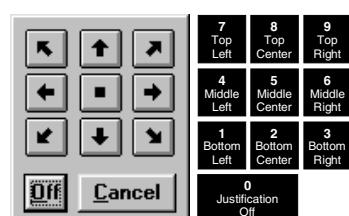


Three buttons provide access to the same functions.

Click the *Justify* button to display a grid that resembles a tic-tac-toe grid. To use the grid, select the text or object, and click the button that indicates how you want the text justified, or where you want the object positioned.

**Keypad** The numeric keypad also emulates the functions of the grid, and thus offers a quick way to position or justify text and other objects, which is particularly useful if you have many repetitions to do. Your keyboard's Num Lock must be turned on. Hold down the <Ctrl> key, and press one of the numbers on the numeric keypad to quickly justify text (and objects).

Notice that the position of the marker in the grid button changes as do the Horizontal and Vertical Justification buttons to indicate the current justification.



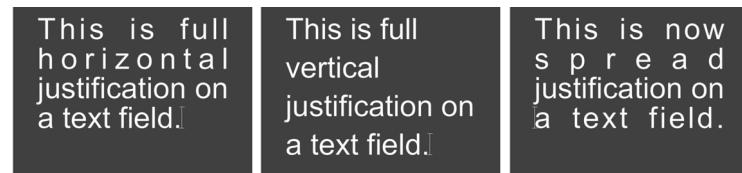
The *Horizontal* and *Vertical Justify* buttons display controls to manipulate text and objects in those axes. In addition, these buttons also contain *Full* and *Spread* functions that apply only to text. Select the text or object, click the button that indicates how you want the text justified or where you want the object positioned. These buttons also contain *Full* and *Spread* functions that apply only to text.

### Full Horizontal, Full Vertical and Spread Justification

*Full horizontal justification* makes the text flush or even with both the left and right sides of the text field box, except for the last line of text which remains left justified.

*Full vertical justification* makes the text flush or even with both the top and bottom of the text field box.

*Spread justification* makes all lines of text flush with both the left and right sides of the text field box, including the last line.



## TRANSFORMING TEXT AND OBJECTS

When you select text or an object, handles appear on the corners and midpoints of the selection box, as shown below.



These three buttons (Enable Moving/Resizing, Enable Rotating/Skewing, Enable Kerning/Leading) have dual functions depending on the selection box handle you point to with the mouse.



The shape of the mouse pointer changes to indicate which function is active.

## Move/Resize Tool



### Moving



The Move cursor indicates moving is enabled. It appears anywhere on the selection box except at the handles.

### Resizing



Corner handles control height and width together.



Middle handles on the right or left control width only.



Middle handles on the top or bottom control height only.

Hold down **<Ctrl>** while dragging a corner handle to constrain the aspect ratio during scaling

In the following example, the word in the center has not been changed. The widths of the words on the left and right are narrowed and expanded respectively.



## The Enable Rotating/Skewing Tool

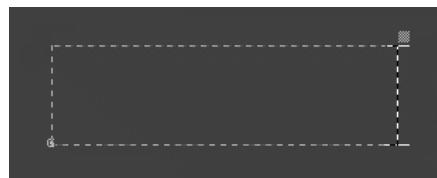


### Rotating



The Rotate cursor indicates rotating is enabled.

When Enable Rotating/Skewing is turned only a single handle appears in the upper right corner of the selection box, as shown below.



The Rotate pointer appears anywhere on the selection box, except at the upper right handle.

### Skewing

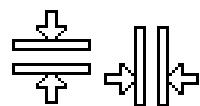


The Skew cursor appears only when you position it on the upper right handle. Use the Skew function to make objects appear slanted.

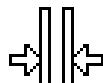
## The Enable Kerning/leading Tool



This multifunction tool is used to change several characteristics. The Kerning and Leading pointers appear only on the four side handles of a selection box, not on the corner handles.

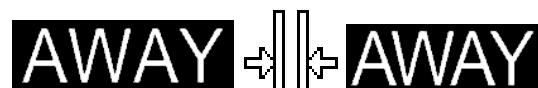


### Kerning



The kerning pointer appears on the right and left side handles of a selection box.

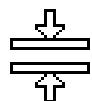
Kerning is adjustment of the space between words and letters. Kerning is typically used for very large letters. Some characters in combination produce spacing that is visually unpleasant.



#### To kern text:

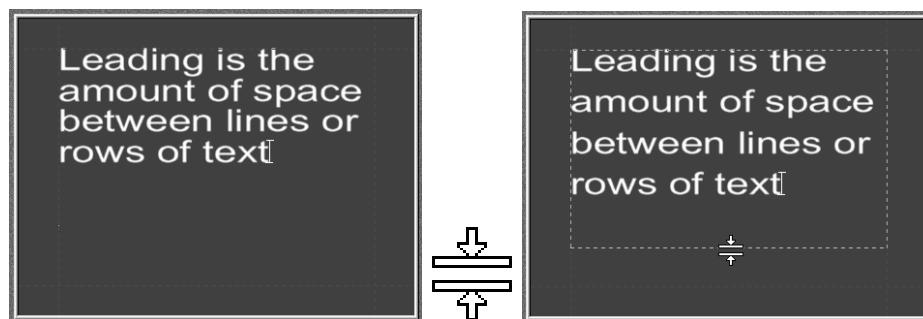
- Click the *Enable Kerning/Leading* button, select the characters to kern.  
Do one of the following:
  - Hold down *<Alt>* and press the right/left arrows to increase/reduce the space between selected characters.
  - Point, click, and drag the handle at either side of the selected text.

### Leading



The leading pointer appears at the top and bottom side handles of a selection box.

Leading is the amount of space between lines of text.



#### To change the leading:

- Click the *Enable Kerning/Leading* button, and select the text.  
Point, click, and drag one of the handles above or below the text block.

# USING AND MODIFYING LOOKS AND STYLES

## About Looks and Styles

**Looks** As you have seen, applying a look changes the appearance of text and objects. A look consists of a face, edge and shadow. Each of those has a variety of parameters you can also adjust.

**Styles** A style includes a look, plus any other formatting or transformations that can be applied to text or objects. For example, styles can include typeface, size, and rotation, in addition to a look.

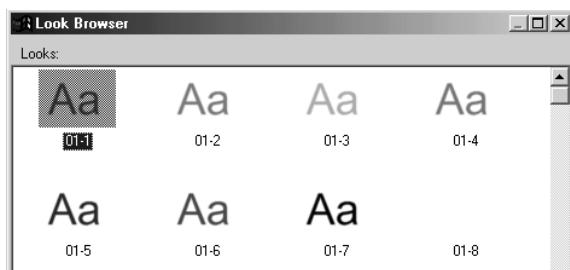
## Applying Looks to Text and Objects

### To select and change looks:

- Select the text or object, then click the *Browse Looks* button on the TitleDeko RT toolbar.



The *Look Browser* graphically displays the looks you can pick. Just double-click the look you want.



## Editing Looks

To create your own custom effect, change the detail attributes of the current look. You cannot save your changes in the *Look Browser*. However, you can save them as part of a style.

**Details** Each look detail (face, edge or shadow) has its own set of attributes such as color, size and blur, which you change to create a custom look. The face is the font rendered in the current attributes. The edge is an additional line around the face, and the shadow is an offset second image of the face and the edge.

## To edit the current look:

Do one of the following to open the *Look Edit* window:

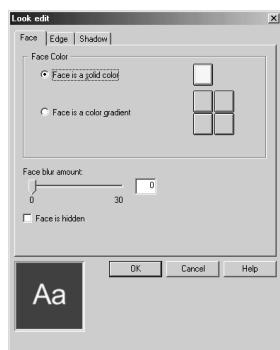
- From the *View* menu, choose *Look Editor*.
- Click the *Edit Current Look* button.



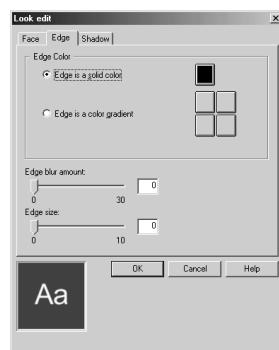
## The Details and Attributes

Most of the Attribute controls are obvious, so the following does not explain those in depth. In addition, a small preview window in the lower left corner shows your adjustments, which makes it easy for you to experiment.

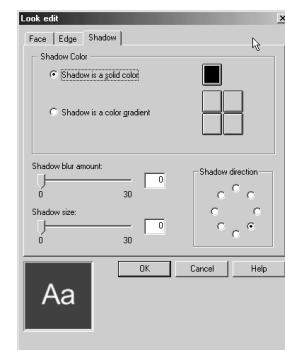
*Face*



*Edge*

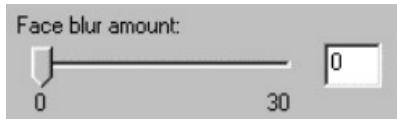


*Shadow*



## Face, edge and shadow details have several items in common:

- Choice of solid or gradient colors. These operate the same was as described later in this chapter in the section on Backgrounds.
- A *Blur* slider, which varies the fuzziness of the face, edge or shadow detail. You can adjust the slider, or type in a precise number.

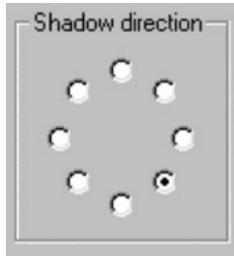


## Face, edge, and shadow details differ in these respects:

- The face detail has a checkbox that turns off the face altogether, leaving only the edge and shadow.
- The edge and shadow details allow adjustment of the edge or shadow size and thickness. Make adjustments either with the slider, or by typing in a precise value.



- The shadow detail also allows you to change the direction of the imaginary light source that creates the shadow.



## Accessing Preset Styles

Styles are accessed in the *Style window*. The *Style* window contains graphic representations of 24 Preset Styles.



To open the *Style window*, choose *Preset Styles* from the *View* menu.

### To apply a style:

- Select the text.
- Open the Style window and click on the style. If no text is selected, the selected style becomes the current style.

## Creating your own Styles

To replace one of the 24 Preset Styles with a style of your own:

- Create text or an object with the attributes you want for your new style.
- Right-click on the Preset Style you wish to replace.
- Select *Deposit Current Style Here*.



# LAYERS AND BACKGROUNDS

## Layers

Layers allow you to put one object in front of another, and to manipulate text and objects in several other ways.

### To move a layer forward or backward:

- Select the object.
- From the *Layer* menu, choose one of the following:
  - *Bring to Front* moves the selected layer in front of all other layers.
  - *Send to Back* moves the selected layer behind all other layers, but in front of the background.
  - *Bring Forward One Layer* moves the selected layer forward one layer.
  - *Send Back One Layer* moves the selected layer back one layer.

### To make a rectangle or inserted picture fill the screen:

- Select the object or picture, then choose *Make Full Screen* from the *Layer* menu.

### To specify typing orientation:

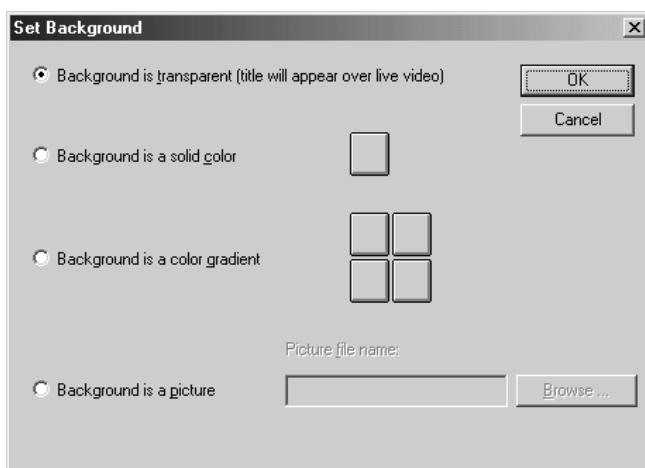
- Clear all text ( $<\text{Ctrl}> + <\text{N}>$ ) or select all text within a layer.
- From the *Layer* menu, choose one of the following:
  - *Left to Right* is the typical orientation. Typed characters are rendered from left to right.
  - *Right to Left* still renders characters from left to right, but in a right justified fashion.
  - *Top to Bottom* renders characters from top to bottom and, interestingly, from right to left.
  - *Top to Bottom Rotated* renders characters from left to right and as though the screen were rotated 90 degrees.

## Backgrounds

Backgrounds fill the screen behind all the text and objects. Titles can have a transparent background, in which case the text and objects appear directly on top of the video. They can alternatively have a solid or gradient color background. A color background can either be opaque (no underlying video is visible), or semi-opaque (allowing the video to show through the color background). TitleDeko RT also allows the option of importing a picture to use as the background.

### Set Background Window

You control all aspects of the background with the *Set Background* window.



#### To open the Set Background window:

Do one of the following:

- From the *File* menu, choose *Set Background*.
- Click the *Replace Background* button on the toolbar.



#### Transparent Backgrounds

Select *Background is transparent* to create a transparent title with no background. This is the default choice for the Background.

The transparent background offers also the “type in context” feature. Ideally open a new title, save it and then drag & drop it into the timeline. The frame under the begin of the title will appear as the background.



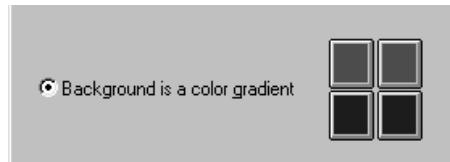
For a transparent or semitransparent title, you must also select Alpha Channel as your Key Type from the Adobe Premiere Transparency Settings window.

## Solid Color Backgrounds

To use a solid color as a background, select *Background is a solid color*. This creates a background consisting of a single color. This background could be semitransparent, if the opacity is set between 0 and 100 percent.

## Gradient Backgrounds

To use a gradient background, select *Background is a color gradient*. Gradient backgrounds consist of two or more colors that are blended smoothly together. Each color can have its own level of opacity.



To make the top a single color that merges into a single color at the bottom, choose the same color for both the top and bottom sets of Color buttons.

## Picture Backgrounds

To use a picture as the background, select *Background is a picture*. Type in the path name, or click the *Browse* button, navigate to the directory that contains the file, and choose the file.

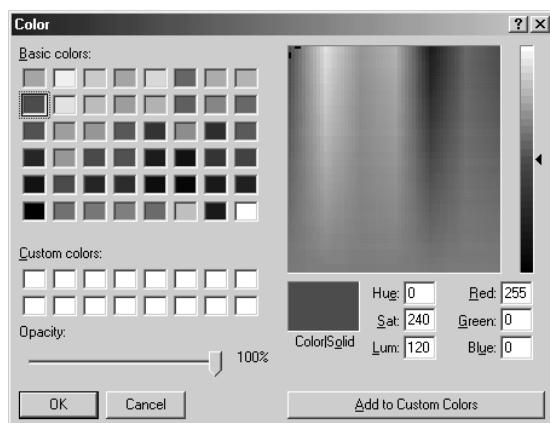
## Selecting Colors and Opacity

### Colors

#### Color Picker

To select color and opacity for a solid or gradient background, click on the corresponding *Color* button. The *Color Picker* appears. Except for opacity, the choices in this screen are self-explanatory and conform to Windows Color Picker standards.

Click one of the basic colors or click anywhere on the color matrix (the large box on the right side of the window). The color you select appears in the Color/Solid box below the matrix. You can, if desired, specify exact values for hue, saturation, luminance.

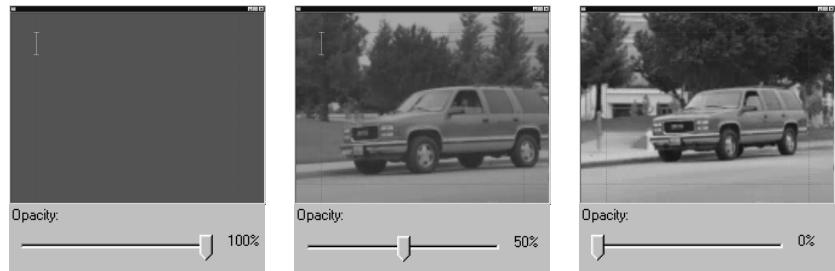


## Opacity

### To specify opacity:

Open the Color Picker window and use the Opacity slider to increase or decrease opacity.

The following illustrations show that, as you adjust the *Opacity* slider down from 100%, the background becomes increasingly transparent.



## LET'S MAKE A TITLE

**Example 1** creates a basic title and inserts it into the Timeline in Adobe Premiere. Examples 2, 3, and 4 Build on this basic title to show more advanced TitleDeko RT features.

**Example 2** enhances the text in a number of ways, including resizing, rotating and skewing. This example also adds a shape behind the text, to which a style is applied.

**Example 3** creates a Roll. This allows the title to roll vertically from the bottom of the screen to the top. It also trims the title from the Adobe Premiere Timeline.

**Example 4** creates a scrollable crawl. This allows the more than one frame of title text to crawl horizontally from the left of the screen, toward the right. You also trim the title from the Main Menu Bar of Adobe Premiere.

### **Example 1:** **Creating a Basic Title**

This example launches TitleDeko RT from Adobe Premiere, creates a basic title, and returns you to Adobe Premiere.

#### **1. Launch TitleDeko RT from the Main Menu Bar of Adobe Premiere.**

Choose *File > New*, then click *TitleDeko...* .

#### **2. Enter the title text.**

TitleDeko RT launches and a text I-Beam cursor awaits text entry. Type the words: **Happy Birthday** You will change the type size and apply a new style to it, but you must first select the text.



### 3. Select the text.

Press **<Ctrl> + <A>** to select the text. A shaded selection box, with handles on its sides, now surrounds the text.



### 4. Apply a Preset Style to the text.

A sampling of styles is displayed in the window to the right of the Preview Area. (If the Style window is not visible, select *View > Preset Styles*.) Scroll down to number 5 and click it.



### 5. Check your progress.

The style characteristics are applied to the text:



## 6. Proportionally shrink the text.

Click the *Enable Moving/Resizing* button.



To resize the text, click anywhere on the text field then press *<Ctrl> + <A>* to select it, then position the cursor on the lower right handle while pressing the *<Ctrl>* key to proportionally shrink the text.

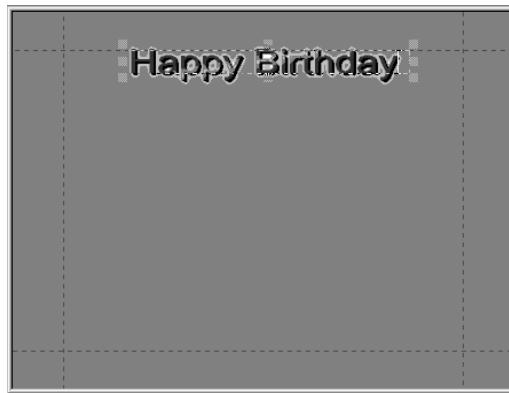
## 7. Center the text horizontally.

To center the text, click the *Horizontal Justify* button to display its pop-up choices. Click the *Center* button.



## 8. Check your progress.

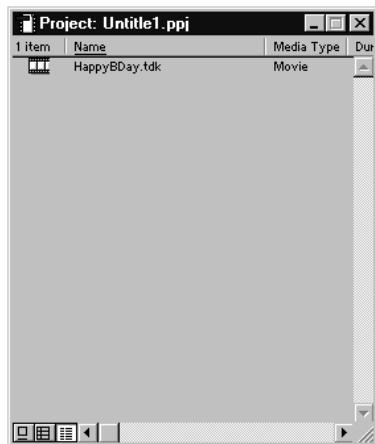
Your title is centered, and appears as follows:



## 9. Save the title and return to Adobe Premiere.

Press **<F12>** to accept the title and return to Adobe Premiere. The *Save as* dialog appears. Type in a file name and click on the *Save* button to close the window.

Adobe Premiere places the title in the Project window.



## 10. Trim the title.

From here, drag the title to the Timeline and place it on Video 2, or the top video track. On the Timeline, place the cursor on the title icon. Right click the icon.

Right-click on the title, and select *Video Options > Transparency* to view the *Transparency Settings* window. From the *Key Type* drop down list, choose *Alpha Channel*. Click *OK*. Click the Player buttons to preview your work.



## Example 2: Modifying the Text

In this example, you enhance the title created in Example 1 by rotating and skewing the text.

### 1. Launch TitleDeko RT from an existing Adobe Premiere project.

Double-click the title on the Timeline, or in the Project window.

### 2. Move the title text.

Click the *Enable Moving/Resizing* button.



Select the text and position the cursor anywhere within the text or on the border (except on the handles) so the cursor is a Move symbol that looks like a cross.



Experiment with moving the text.



### 3. Rotate the text.

Click the *Enable Rotating/Skewing* button.



Rotate the text.



#### 4. Apply a combination of formatting techniques.

In the following illustration, Style 06-6 was applied to the text. The selection was rotated, made bold, and resized. The Rotate/Skew tool was used to skew the text, by grabbing the upper right handle with the Skew cursor.



#### 5. Add and transform a rectangle.

Click the *Add Rectangle* button. A white rectangle appears. Click the *Enable Moving/Resizing* button and resize the rectangle. Click the *Enable Rotating/Skewing* button, grab the upper right handle and skew the rectangle. Position the Rotate/Skew cursor over the shape and rotate it to match the text angle. Click the *Style 11-8* icon. Move the shape over the text and select *Layer > Send to Back* from the menu bar.



#### 6. Save the title and return to Adobe Premiere.

Press *<F12>* to accept the title and return to Adobe Premiere. The *Save as* dialog appears. Type in a file name and click on the *Save* button to close the window.

Adobe Premiere places the title in the Project window.

## Example 3: Creating a Roll

In this example, you create a title selecting *Roll* as the File Type. This will allow the title to roll vertically from the bottom of the screen, to the top. You also trim the title from the Timeline.

### 1. Launch TitleDeko RT from the Main Menu Bar of Adobe Premiere.

Choose *File > New*, then click *TitleDeko...* .

### 2. Enter the title text.

TitleDeko RT launches and a text I-Beam cursor awaits text entry. Type the words: **Best Wishes from Your Fan Club on Your Birthday**. Use the <Enter> key to add extra empty rows after the text to ensure that the title rolls completely off screen.

### 3. Select the text.

Press <Ctrl> + <A> to select the text. A shaded selection box, with handles on its sides, now surrounds the text.

### 4. Apply a Preset Style to the text.

A sampling of styles is displayed in the window to the right of the Preview Area. (If the Style window is not visible, select *View > Preset Styles*.) Scroll down to number 2 and click it.

### 5. Center the text horizontally.

To center the text, click the *Horizontal Justify* button to display its pop-up choices. Click the *Center* button.

### 6. Fully Justify the Text Vertically.

Click the *Vertical Justify* button to display its pop-up choices. Click the *Full* button.

### 7. Make the title a Roll.

Click the *Effect* drop-down arrow. Select *Roll*.

### 8. Save the title and return to Adobe Premiere.

Press <F12> to accept the title and return to Adobe Premiere. The *Save as* dialog appears. Type in a file name and click on the *Save* button to close the window.

Adobe Premiere places the title in the Project window.

### 9. Trim the title.

Right click the title icon on the Timeline. Do one of the following:

- Select *Duration*, and enter a new duration. Click *OK*.
- Select *Speed*, and enter a new rate. You can also enter a new duration from this *Clip Speed* window. Click *OK*.

 Selecting Roll or Crawl allows you to use more text than will fit in the video safe area. Select *File > Scrollable* to roll or crawl additional text.

## Example 4: Creating a Crawl

In this example, you launch TitleDeko RT and create a scrollable crawl. This will allow the title to crawl horizontally from the left of the screen, toward the right. You change the crawl's vertical position on the screen. You also trim the title from the Main Menu Bar of Adobe Premiere.

### 1. Launch TitleDeko RT from the Main Menu Bar of Adobe Premiere.

Choose *File > New*, then click *TitleDeko...*.

### 2. Enter the title text.

TitleDeko RT launches and a text I-Beam cursor awaits text entry. Type the words: **Happy Birthday to You! Happy Birthday to You! Happy Birthday, Dear You!** Remember, you don't use the <Enter> key when typing crawl text. Also, crawls cannot include ellipses or rectangles.

### 3. Select the text.

Press <Ctrl> + <A> to select the text. The text is now surrounded by a shaded selection box with handles on its sides.

### 4. Apply a Preset Style to the text.

A sampling of styles is displayed in the window to the right of the Preview Area. (If the Style window is not visible, select *View > Preset Styles*.) Scroll down to number 3 and click it.

### 5. Make this title a Crawl.

Click the *Effect* drop-down arrow. Select *Crawl*. By default, Crawl text will crawl across the bottom of the screen. Change the starting position of the Crawl by pressing <Ctrl> + <Home>, then holding <Alt> as you use the up or down arrow keys to move the first character to a new vertical position.



You cannot change the starting position of a Crawl by moving selected text.

### 6. Save the title and return to Adobe Premiere.

Press <F12> to accept the title and return to Adobe Premiere. The *Save as* dialog appears. Type in a file name and click on the *Save* button to close the window.

Adobe Premiere places the title in the Project window.

### 7. Trim the title.

Do one of the following:

- Select *Clip > Duration*, and enter a new duration. Click *OK*.
- Select *Clip > Speed*, and enter a new rate. You can also enter a new duration from this *Clip Speed* window. Click *OK*.



You can also adjust the duration of the title by dragging the left and right edges of the title icon on the Timeline.



# Chapter 12:

# Hollywood FX RT

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## INTRODUCTION

This chapter will provide you the information you need to get started using Hollywood FX in your productions as well as customizing effects using the keyframe editor. Hollywood FX is automatically installed during the **Pro-ONE** driver install.

Hollywood FX adds an incredible collection of 3D transitions and effects that you can quickly add to your video productions, and customize completely for your specific needs.

For detailed information refer to the “Performance” section as of page 143 in this chapter.

## BEFORE YOU START

Throughout this chapter we use the term **FX** to refer to the transitions and effects in Hollywood FX. This term generically describes the following types of transitions and effects:

- ♦ **Transition**  
These are standard A-B transitions, where one video source transitions into a second.
- ♦ **Transition+**  
These are also A-B transitions; however, they may have an additional channel that can be mapped with your own graphic.
- ♦ **MultiWindow**  
These effects are not transitions at all. Instead, windows of video may fly on or off the screen into various positions while playing your video.

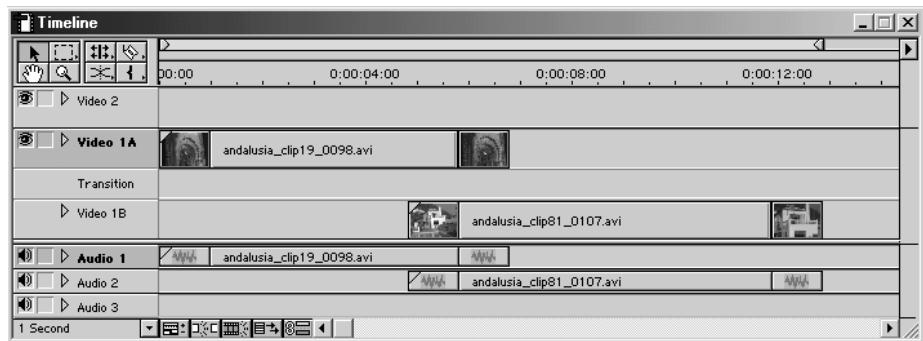
# GETTING STARTED

Hollywood FX appears in the **Pinnacle** group of the *Transitions* window in Adobe Premiere. If it does not appear see “Troubleshooting” for more information.

## TUTORIAL: TRANSITIONS & OPTIONS

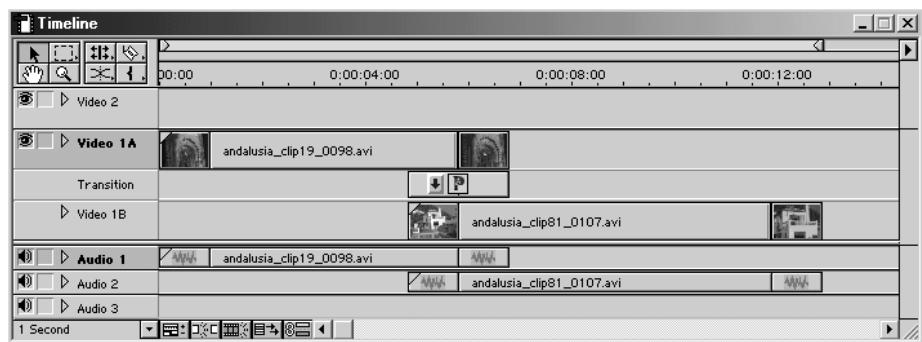
This tutorial will take you through the basics of selecting a Transition FX and setting Effect Options.

Before adding a Hollywood FX transition, prepare two video sources on the A and B tracks of the timeline, so that there is some overlap between the two video clips.



### To add a transition to the timeline:

1. Make sure the *Transitions* window is visible. If not, select *Transitions* from the Premiere menu.
2. Drag *Hollywood FX* from the *Transitions* window into the *Transition* track of the Timeline window so that it is between the two video clips (the transition should automatically snap to fill the time between the two clips).



3. Double-click on the transition block.

The Hollywood FX dialog will appear, letting you choose a specific transition, and change options for your transition.



The Hollywood FX dialog is organized into panels. The first panel is the Control panel, which is the central control for working with FX. Selecting items in the Control panel brings up different Item panels on the right side of the dialog. The second panel is the Monitor panel that displays the preview of the current FX. Finally, the Options panel changes to show different options for the selected item in the Control panel.

## Selecting An FX

When the Hollywood FX dialog is displayed, you will immediately see the *FX Catalog* (this is displayed when the current FX name is selected in the Control panel). The FX Catalog has two major controls. The FX Group popup list at the top of the page allows you to select one of the many groups of FX. Below the FX Group list are the icons for each FX in the group. For this tutorial you will select an interesting transition called *Star Fruit*. This FX is in the *Complex Shapes* group.

### To select the Star Fruit FX:

1. Select *Complex Shapes* from the FX Group popup list.
2. Click on the *Star Fruit* FX icon.

When you select this FX, hints and tips for that effect appear at the bottom of the FX Catalog panel.

## The Monitor Panel

Whenever you make changes in Hollywood FX, the preview window in the Monitor panel is updated. Try dragging the slider directly below the preview to view different frames of the preview.

The Video Output button determines whether a full video preview will be displayed on the monitor connected to **Pro-ONE**'s analog output or to **Pro-ONE RTDV**'s analog or DV output. When this button is pressed, output will be displayed to your analog monitor. When the button is not selected, the preview will only be displayed on the *Monitor Panel* in the Hollywood FX dialog. Sometimes it is useful to turn off the Video Output temporarily for better performance when editing an effect.



You can play the entire FX once by clicking on the play once button.



You can have the preview play continuously as you work, by depressing the loop play button. Press the loop play button a second time to stop the looping playback.

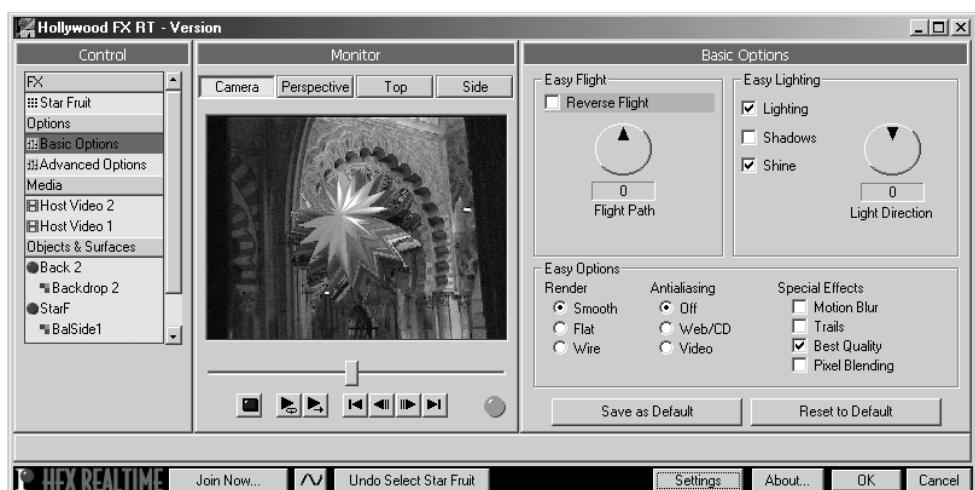
The other controls in the Monitor panel let you quickly jump to the start or end of the effect or to step frame by frame back and forth.

## Basic Options

Hollywood FX gives you quick and easy control over many FX options. You can create new and exciting results **without** having to re-keyframe the entire FX.

### To view the Basic Options:

- Click on the *Basic Options* item in the *Control panel*.



You may want to turn on continuous playback of the preview while changing options to better see the results.

### To turn on continuous playback of the preview:

- Click on the *Loop Play* button below the preview window in the Monitor panel.

## Easy Flight Options

You can quickly change the flight path of an object in useful ways using the Easy Flight controls.

### Reverse Flight

- Click on the *Reverse Flight* checkbox. Watch the changes in the preview. Watch the preview now. You will see that instead of the first video source flying off and revealing the second video source, the second video source will fly on and cover the first video source.
- Click on the *Reverse Flight* checkbox to clear it.

### Flight Path

- Click-and-drag the *Flight Path* dial so that it reads *45*. Watch the preview.
- Click-and-drag the *Flight Path* dial so that it reads *90*. Watch the preview.
- Click-and-drag the *Flight Path* dial so that it reads *0*. You can also use the arrow keys to change the dial by one degree increments.

The Flight Path dial rotates the entire flight path of the 3D objects in the FX, giving you a different result quickly and easily.

## Easy Lighting

Lighting and shine add incredible 3D realism to an FX and by default are turned on. Try turning them off to see the difference:

### To turn off Lighting and Shine:

- Click on the *Shine* checkbox to clear it. Notice that the glossy shine disappears.
- Click on the *Lighting* checkbox to clear it. Notice that the 3D ball is no longer shaded.
- Click on *Shine*, *Shadows*, and *Lighting* to turn back on all of these features.

Shadows can add even more realism to an effect, however, turning on shadows will force the effect to be rendered (it will still be previewed in realtime, but must be rendered for final output).

### To turn on Shadows:

Turn off continuous playback of the preview

- Click on the *Shadows* checkbox to set it. Notice the shadow that is now displayed. You can drag the slider in the Monitor panel to view the effect with shadows.

In addition to being able to control which lighting features are used, you can also control the light direction. By default, light comes from the top center of the 3D object space". When you adjust the light direction, it automatically adjusts the shine and shadow position as well.

### Light Direction:

- Click-and-drag the *Light Direction* dial so that it reads *90*. Watch the preview.
- Click-and-drag the *Light Direction* dial so that it reads *180*. Watch the preview.
- Click-and-drag the *Light Direction* dial so that it reads *0*. You can also use the arrow keys to change the dial by one degree increments.

Changing the light direction to 180 degrees gives a very unique, almost sinister appearance.

## Easy Options

The Easy Options controls let you adjust special rendering features of the 3D engine.

### Render Type

Normally objects with curves are rendered with smooth surfaces. You can use the Render Type to change to faceted or wire surfaces.

### Render Type

- Click on the *Flat* radio button under *Render*. Notice that the object no longer appears smooth.
- Click on the *Wire* radio button under *Render*. Notice that the object is now rendered as a wireframe rather than a solid object.
- Click on the *Smooth* radio button under *Render* to return to smooth solid rendering.

### Anti-Aliasing

Sharp edged 3D effects can exhibit stairstepping along the edges of objects. Antialiasing can eliminate this problem, by rendering an effect with antialiasing turned on.

### Antialiasing:

- Click on *Video* under *Antialiasing* to switch to scene antialiasing. This generally will not change the preview, but during final rendering full Scene antialiasing will be used.
- Click *Ok* to exit the Hollywood FX dialog, and render your timeline in Premiere. You will see that the sharp edges of the rendered transition are very smooth.

## Saving Your Favorite Options

If you find that you like a particular set of options and almost always use those options, you can click on the *Save as Default* button at the bottom of the *Basic Options* panel. After doing this, any new effect that is selected will default to those saved options.

## Advanced Options

If you click on *Advanced Options* in the Control panel, you will be able to control detailed options for Shadows, Trails and Motion Blur.

## Changing an Existing Transition

You can modify a transition that is already in the timeline, through a number of effect parameters and effects options.

### To change a transition in the timeline:

- Double-click on the representation of the transition in the **T** track to display the *Hollywood FX* dialog.
- Make your changes in the *Hollywood FX* dialog.

## TUTORIAL: TRANSITION+

Hollywood FX RT contains special transitions that have additional 3D objects and an additional graphic channel that you can replace with your own graphic. Whenever you see a red number “3” video source in an FX icon, this indicates a 3<sup>rd</sup> media track that can be replaced with your own graphic.

## Selecting the FX

For this tutorial, you will select an effect called “Interview 2 Transition”, where two video sources play side-by-side and a bitmap is used for the background.

### Selecting the Interview 2 Transition and setting options:

1. Prepare two video clips for a transition and drop in a Hollywood FX transition as in the previous tutorial.
2. Double-click on the Hollywood FX transition to display the Hollywood FX dialog.
3. Select *News* from the FX Group popup menu.
4. Select *Interview 2 Transition* from the FX icons (it is the second icon in this group).
5. Click on the *Basic Options* item in the *Control panel*.
6. Click on the *Reverse* checkbox.
7. Click on the *Play Once* button in the Monitor panel.

### Mapping the Additional Graphic Channel

In the Control panel you will see three items under *Media*. *Host Video 1* and *Host Video 2* get their video from the Premiere timeline. Any additional media items are selected by you in Hollywood FX. We will change the *Host Video 3* media which defaults to a blue gradient in Hollywood FX RT.

#### To map the additional Media source:

1. Click on the *Host Video 3* media item in the *Control panel*.
2. Click on *Select File* in the *Media Options* panel.
3. When the file requester appears, it should default to the *Images* folder of Hollywood FX RT (if it does not, please browse until you find the *Images* folder within the Hollywood FX RT folder).
4. Double-click on the *Standard* folder.
5. Double-click on the *SpaceDoughnut.tga* file.

You should immediately see the change in the preview. You can map 24 and 32 bit Targa images (.tga), Bitmaps (.bmp) and Portable Network Graphic images (.png).

### Important Real Time Note

By default, Hollywood FX will automatically scale any graphic so that it can be played in real time. If you would rather render the effect and maintain the original quality of the graphic, then you should check the *Maintain Original Resolution* checkbox on the Media panel.

In upgrade versions of Hollywood FX, you will be able to map these additional media sources with video clips (such as AVI or QuickTime files), however, **Pro-ONE** can only playback Hollywood FX in real time only when the FX has a maximum of two video sources and one graphic.

# TUTORIAL: ENVELOPES

This tutorial demonstrates the way you can keyframe any option in Hollywood FX to create advanced results.

Hollywood FX uses the term **Envelope** to describe a set of keyframes that describe how an option's value will change over time in Hollywood FX.

## Prepare for the Tutorial and Select the FX:

1. Create a new project in your host application.
2. Add two video clips and create a two second transition between them.
3. Add Hollywood FX as a transition between the two video clips.
4. From the Hollywood FX dialog, select the *Tumble 2* transition in the *Flying Window* group.

The Envelope Editor is normally hidden when you first begin using Hollywood FX.

## To display the Envelope Editor:



- Click on the *Envelope Editor* button at the bottom of the Hollywood FX dialog.

## The Envelope Editor Button

The Envelope Editor will appear. We are going to modify the **Tumble 2** transition by making the tumbling video dissolve as it tumbles into the distance. We will do this by creating an envelope for the object's **Dissolve** option.

## Select the Object and Option:

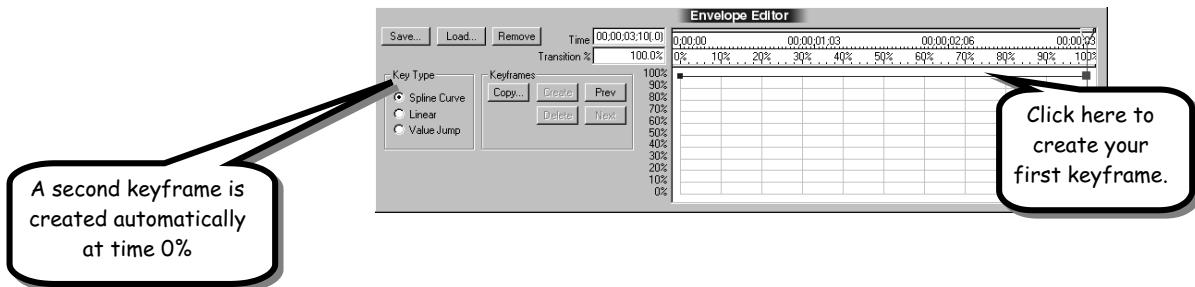
1. Click on the *Flat Window* object in the *Control* panel.
2. Click on the *Dissolve* slider in the *Object Options* panel so that it is highlighted.

Notice that the word *Dissolve* under the slider is highlighted in green. This is an indicator that it is the current option that can be modified in the Envelope Editor. Whenever you select a control that can have an envelope in Hollywood FX, it will be highlighted in green.

Hollywood FX makes it extremely easy to create envelopes by simply clicking and dragging in the envelope window. We want to create an envelope for dissolve that makes the object disappear over the entire length of the transition.

### To create a simple envelope:

- Click-and-drag in the envelope window at 100% in time, and 100% in value. Drag the keyframe you create all the way to 100% value and release the mouse.



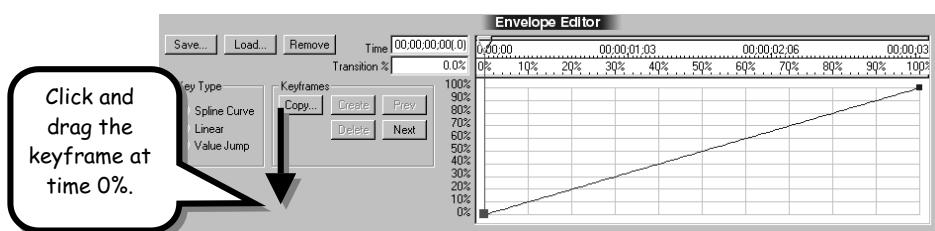
Notice that there are two keyframes (indicated by blocks). The one at 100% is the one you created. The keyframe at 0% is created automatically, since all envelopes in Hollywood FX must at a minimum have keyframes at 0% and 100%.

Also notice that the preview and the current time slider at the top of the envelope window both moved to 100%, and that the keyframe at 100% is highlighted in red to indicate that it is the current keyframe.

The way the envelope is currently designed, the value of **Dissolve** will remain 100% for the entire effect. What we want is for the value to start at 0%, so let's change the first keyframe.

### To change the first keyframe:

1. Click-and-drag on the blue block that represents the keyframe at time 0%.
2. Drag the blue block to the bottom of the envelope window (value 0%). Notice the Dissolve slider (in the Object Options panel) while you are dragging. Its value is “tied” to the current envelope.
3. Release the mouse button.

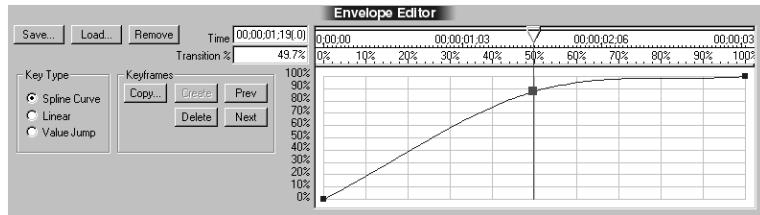


Now our envelope will work correctly, causing the object to dissolve over the entire length of the transition. Try playing the preview to see the results.

Let's add one more keyframe to this envelope, so that the object becomes transparent more quickly. We will create this key in a different way.

### To create the new keyframe:

1. Drag the current time slider at the top of the envelope window until it is at 50%.
2. Now drag the **Dissolve** slider in the Object Options panel up to 90%.



The new keyframe is created automatically when you change the value of *Dissolve*. This shows how the original value slider for Dissolve and the Envelope Editor are tied together. This feature makes it extremely easy to create keyframes for any value in Hollywood FX.

Before concluding this tutorial, let's play around with some of the other envelope controls. First, let's move quickly between the keyframes in this envelope.

### To move between keyframes:

1. Click on the *Prev* button in the Envelope Editor. The current time slider (and preview) will move to the keyframe at 0%.
2. Click on the *Next* button in the Envelope Editor. The current time slider will move to the keyframe at 50%.
3. Click on the *Next* button. The current time slider will move to the keyframe at 100%.
4. Finally, click on the *Prev* button to return to the 50% keyframe.

Using the *Prev* and *Next* buttons can quickly get you to the keyframe you need, especially when you have keyframes close together and one of them is hard to select by clicking on it with the mouse.

Now, let's save our current envelope to disk. If you create an interesting envelope that you might want to use again, you can save it to disk.

### To save the envelope:

1. Click on the *Save...* button in the Envelope Editor.
2. Type **tutorial** for the filename in the file requester.
3. Click *Ok* in the file requester to save the envelope.

Now let's say we don't really like having the keyframe at 50%, so we will get rid of it.

### To delete the current keyframe:

- Click on the *Delete* button in the Envelope Editor.

The keyframe at 50% disappears, and the envelope returns to a straight line between 0% and 100%.

If we decide we don't want the envelope at all (we want to return to a single value for the entire duration of the FX), then we can remove the envelope.

### To remove the envelope:

- Click on the *Remove* button at the top of the Envelope Editor.

The envelope will disappear, and the Dissolve slider now controls the dissolve value for the entire duration of the FX.

For our final trick, let's load back in the envelope we saved above.

### To load an envelope:

1. Click on the *Load* button in the Envelope Editor.
2. Double-click the **tutorial** file in the file requester.

Our envelope is back. Exit the Hollywood FX dialog and try rendering the FX with the dissolve envelope.

Remember, envelopes can be created for almost any value in Hollywood FX. If a control is highlighted in green when you use it, that means you can control that value with an envelope and create exciting results.

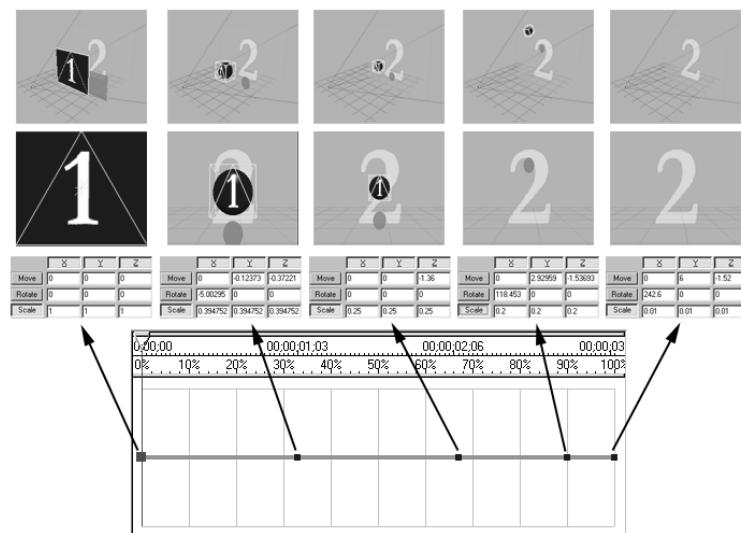
## TUTORIAL: PATH EDITING

When you want to customize an FX, you can edit the paths of any 3D object to create unique results. A set of tools on the Object Options panel along with the Envelope Editor give you complete flexibility to create new flight paths for objects. In this tutorial, we will take the Ball Backup FX, and create a new path so that the ball bounces up and down on the screen. We use the term **path** to mean the envelope for an object's position, rotation, and scale.

### Prepare for the Tutorial and Select the FX:

1. Create a new project in your host application.
2. Add two video clips and create a two second transition between them.
3. Add Hollywood FX as a transition between the two video clips.
4. Select the *Ball Backup* transition in the *Basic Shape Transitions* group.
5. Click on the *Sphere* object in the Control panel.

The *Positioning* group should be highlighted in green, indicating that object positioning is currently being edited in the Envelope Editor. This is exactly what we want, since the positioning tools are what we use to create a path for an object. In the case of path editing, each keyframe of the envelope (or path) indicates the position, rotation and scale of the object at that time in the FX. Hollywood FX then automatically determines the positioning of the object between each keyframe, so that the object moves smoothly from the position at one keyframe to the position at the next keyframe. Let's start by looking at the keyframes in the Ball Backup FX.



The picture above shows each keyframe in the Ball Backup FX. For each keyframe you can see the position, rotation and scale values, as well as a camera preview and a perspective preview of the FX at that time. You can follow along yourself by using the *Next* and *Prev* buttons in the Envelope Editor, and using the *View* buttons in the Monitor panel to switch between camera and perspective view.

At the first keyframe, the object is not morphed, and is positioned at 0, 0, 0 on the X, Y, and Z axis. It is not rotated at all (0, 0, 0), and is scaled at 100% of normal size (1, 1, 1).

At the second keyframe, the object is moved down a small amount along the Y axis (-0.123) and farther away from the camera (-0.37 along the Z axis). The sphere object is also scaled smaller (0.39, 0.39, 0.39) in all directions.

The third keyframe continues the object's movement away from the camera (-1.36 on Z), and is smaller again (0.25, 0.25, 0.25 for scale).

In the fourth keyframe, notice that the sphere is rotated 118 degrees around the X axis, and has moved offscreen.

In the last keyframe, the object has been scaled so small it is no longer visible, and is far offscreen.

By looking at the existing keyframes, you will better understand what is needed to create a new path. We are going to create a path where the sphere moves away from the camera, then bounces up and down.

We will begin by removing the current path.

### To remove the current path:

1. First make sure the current time slider is at time 0% (so that the first keyframe is highlighted).
2. Click on the *Remove* button to remove the path envelope.

By first making sure we are positioned at time 0%, the object will be left at its fullscreen size and position when we remove the envelope this will make it easy to start a new path.

Try playing the preview now. The object still morphs into a sphere, but it doesn't move anywhere. We are now ready to make it move the way we want it to. Often, the easiest way to create a path is to create the first and last keyframes, then fill in the middle.

### To create a new path:

- Click on the *Create* button in the Envelope Editor

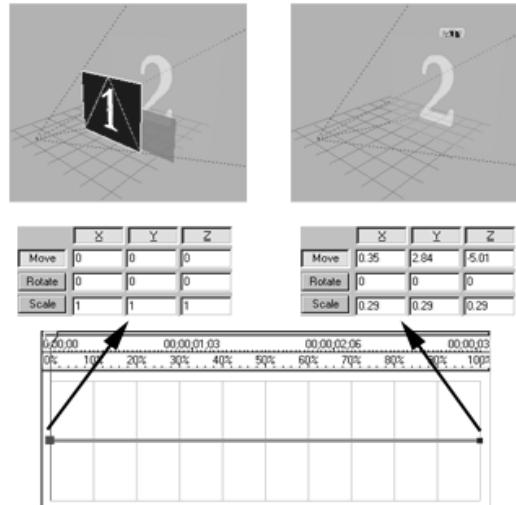
Two keyframes get created, both with the object at the fullscreen position. Hollowed FX must always have at least two keyframes (one at time 0% and one at time 100%) in a path, so it creates the second keyframe automatically. If you play the preview again, you will notice that nothing has changed. Since our two keyframes are at the same position, the object still does not move. Let's change the 100% keyframe so that the object will be in its final position. You will actually move and adjust the sphere object by clicking and dragging in the preview window, so read the following directions very carefully.

### To change the last keyframe:

1. Click the *Next* button in the Envelope Editor, so that the 100% time keyframe is selected.
2. Click on the *Scale* tool button in the Object Options panel.
3. Click-and-drag in the *Monitor* window to interactively scale the sphere object. Drag to the left until the object is about one quarter its original size (you can watch the scale values and stop scaling when the scale values reach about 0.25).
4. Click on the *Move* tool button in the Object Options panel.
5. Click-and-drag in the preview window to interactively move the sphere. Move the sphere towards the top of the preview until it is offscreen.
6. Click on the *Perspective* button in the Monitor panel to switch to perspective view.

7. Right Click-and-drag in the preview window to move the sphere along the Z axis. Move the mouse up until the object on the screen moves all the way behind the backdrop video object, and the shadow is no longer visible.
8. Click the *Camera* button in the Monitor panel to return to camera view.

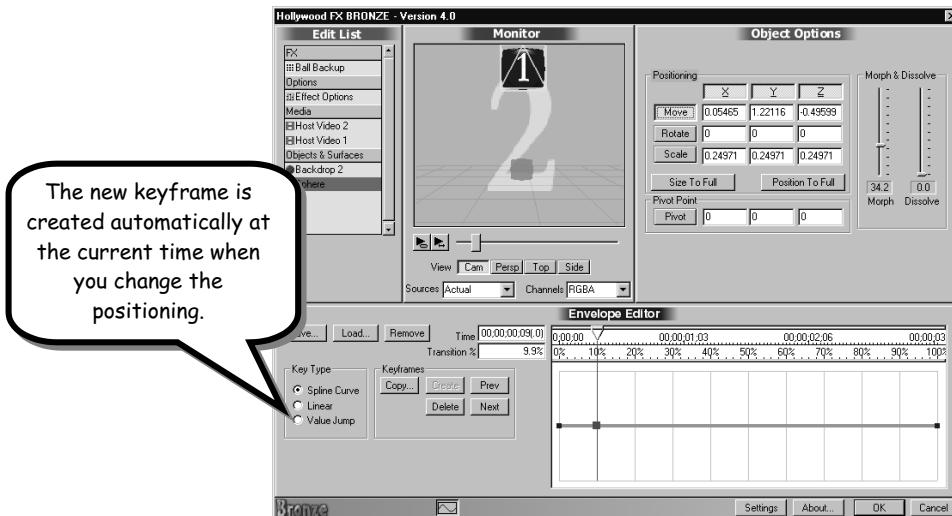
Now if you play the preview, you will see that the sphere simply shrinks and disappears towards the top of the screen.



Now we will create two more keyframes for the top and bottom of our bounce (then we will use the Envelope Editor's copy function to duplicate the bounce). First let's create the top of the bounce.

#### To create a new keyframe:

1. Move the current time slider to time 10%.
2. Click on the *Scale* tool button in the Object Options panel.
3. Click-and-drag to the left in the preview until the object's scale values are around 0.25.
4. Click on the *Move* tool button in the Object Options panel.
5. Click-and-drag up in the preview until the object is at the very top of the preview.



Notice that a new keyframe was automatically created for you as soon as you began changing the object's positioning. This eliminates the tedious process of manually creating keyframes that some programs require. You simply move the current time slider to the time you want, and begin editing. Now, let's create the bottom of the bounce.

### To create the bottom of the bounce:

1. Move the current time slider to 20%.
2. The *Move* tool should already be selected in the Object Options tab, if not, click on it.
3. Click-and-drag down in the preview until the object is at the very bottom of the preview.

Right now, at the bottom of the bounce, the keyframe is set to move smoothly through that time, so it won't look much like a bounce. Let's change that by making the spline curve to perform a bounce instead of a smooth curve. We will use the Presets feature in Hollywood FX.

### To make the current keyframe a bouncy keyframe:

1. Click on the *Presets* dropdown in the Spline Control group at the bottom of the Envelope Editor.
2. Select *Bounce* from the list of presets. This will adjust the Tension, Continuity and Spline values for the current keyframe to create a bouncy motion.

Now we have a single bounce, but we would like the sphere to bounce again and again. We will use the copy function to easily reproduce our bounce. We will copy two keyframes that are at 10% and 20%, and paste them so that we have a new bounce from 30% to 40%.

**To copy a set keys:**

1. Click on the *Copy* button in the Envelope Editor.
2. Type in **9** for Start and **21** for end (this makes sure we get the keyframes even if they aren't exactly at **10%** and **20%**).
3. Type in **30** for paste.
4. Click *OK*.

The keys at **10%** and **20%** will now be duplicated, and you should have a second bounce at **30%** and **40%**. Let's make one more copy, this time of our original bounce, and the first copy we made.

**To copy the keys:**

1. Click on the *Copy* button in the Envelope Editor.
2. Type in **9** for Start and **45** for End.
3. Type in **50** for Paste.
4. Click *OK* to make the copies.

Now you will have four bounces before the object flies off screen. Try playing the preview to see the results.

Before leaving, you might want to save this path for future use.

**To save your path:**

1. Click on *Save...* in the Envelope Editor.
2. Type the name **bouncy** as the filename in the file requester.

When you are finished try rendering your creation in your host application.

## PINNACLE ONLINE

Pinnacle Online (<http://www.pinnaclesys.com/online>) and the Pinnacle Support website (<http://www.pinnaclesys.com/support>) are your best resources for Hollywood FX RT.

When you register Hollywood FX online (<http://www.pinnaclesys.com/online>) you will receive a userid, password, and some initial credit that you can use at Pinnacle Online. Browse through and order new FX that let you tailor Hollywood FX RT to your specific needs. Once you have used your initial credit, you can purchase additional credit at any time and continually add new effects to Hollywood FX RT, allowing you access to specific effects for specific projects.

You will also find free updates at the Pinnacle Support website (<http://www.pinnaclesys.com/support>).

You will be able to instantly purchase upgrades to Hollywood FX RT that will give you more power to create your own 3D transitions and compositions.

To use Pinnacle Online or access the Pinnacle Support website you will need a web browser (like Microsoft Internet Explorer or Netscape Navigator), and a connection to the Internet. Simply connect to Pinancle Online at <http://www.pinnaclesys.com/online> and follow the instructions you find there.

## PERFORMANCE

With **Pro-ONE**, most of the Hollywood FX transitions and effects will playback in realtime. However, when you want full antialiasing quality, or select certain complex effects (like many of the effects in Club Hollywood), you will be required to render the effect. In this situation Hollywood FX uses OpenGL, which is an industry standard 3D graphics language for high performance high quality rendering. Over the past few years the 3D accelerators and their OpenGL graphics drivers have improved dramatically, however there are still times that the graphics drivers cause incompatibilities with Hollywood FX. For this reason, Hollywood FX defaults to software-only rendering for the highest degree of compatibility, at the cost of slower previews and rendering.

This section describes the steps you can take to improve 3D rendering performance. You should only try these changes once you are familiar with Hollywood FX and have successfully rendered some effects in your projects.

## CPU Speed, Bus Speed, and Memory

Your system configuration can make a dramatic difference in performance. By upgrading your CPU to a faster speed, upgrading to a new motherboard that has a 133 MHz (or faster) bus, and by increasing memory to 256 MB or more, you can dramatically improve the performance of Hollywood FX, whether you have a 3D graphic accelerator or not.

## Preview Performance

Almost any good 3D accelerator will improve the performance in the Preview Monitor window. You must enable on-screen preview rendering to benefit from your accelerator.

### To enable on-screen (accelerated) preview rendering:

1. Click on the *Settings* button at the bottom of the Hollywood FX window.
2. In the Settings dialog, select *OpenGL Hardware Engine* in the Preview Type dropdown.
3. Click *OK* to return to the Hollywood FX window and try the new settings.

If you encounter problems with the preview after enabling on-screen rendering, you should immediately return to Settings and return to *Portable Software Engine*.

## Final Rendering Performance

To enable acceleration for final rendering, you must change to Hardware rendering.

### To enable Hardware rendering:

1. Click on the *Settings* button at the bottom of the Hollywood FX window.
2. In the Settings dialog, change the Render Type to *OpenGL Hardware Engine*.
3. Click *OK* to return to the Hollywood FX window and try the new settings.

If, after making this change, your effects do not render properly, you should immediately return to Settings and change the *Render Type* back to *Portable Software Engine*. If you are unable to reset the *Render Type*, you should reinstall the Hollywood FX software.

## TROUBLESHOOTING

This section provides a list of common problems and their solutions. If you can't find an answer to your problem in this list, or in the **ReadMe** file that is created during setup, then contact Hollywood FX customer support for more help.

### ***Hollywood FX does not show up in Adobe Premiere.***

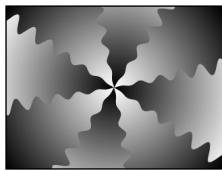
During installation Hollywood FX will attempt to find Adobe Premiere and install the proper plugin files for that application. If Hollywood FX does not show up, you can copy the file **Fx-5HfxRTW.prm** from the folder **Program Files\Pinnacle\Hollywood FX RT\Host Plugins** to the **Plug-Ins** folder in Adobe Premiere.

### ***My video editor crashes when I try to use Hollywood FX.***

This usually indicates a conflict with your 3D graphics card. You should download and install the very latest drivers for your graphics card. If the problem continues, reinstall Hollywood FX to reset to the software-only preview engine.

### ***My effect is not playing in realtime, it keeps forcing me to render.***

Check the *Basic Options* panel in Hollywood FX. Make sure that *Shadows*, *Antialiasing*, *Motion Blur*, and *Trails* are all turned **off**.



# Chapter 13: Alpha Magic FX

## INTRODUCTION

Alpha Magic FX contains a library of real time gradient wipes.

A wipe is a transitional effect between two video clips, where the first clip becomes transparent to reveal the underlying second clip. If this happens to the whole image at once, the effect is called a dissolve—in a wipe, some parts of the video get transparent earlier than other parts, showing a certain sequence or pattern. A well done wipe transports some meaning to the viewer by its pattern, but does not distract too much from the video.

A gradient wipe uses a bitmap image to define the wipe pattern or sequence.

Alpha Magic FX with **Pro-ONE** provides all you need to do all kinds of truly professional wipe effects—Alpha Magic comes with a vast number of real time wipe shapes and smooth edge control settings... .

This chapter will introduce you to Alpha Magic FX gradients and provide information about how to use them as Pinnacle real time transition effects.

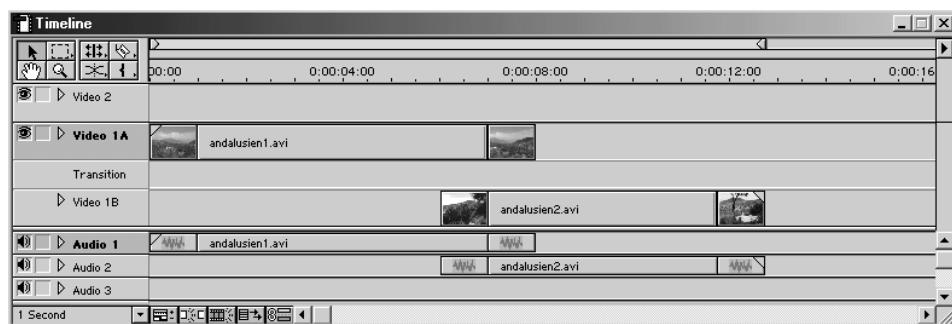
## ALPHA MAGIC FX AND PINNACLE GRADIENT WIPE

Alpha Magic FX is the set of gradient wipe patterns that come with **Pro-ONE**, and Pinnacle Gradient Wipe is the transition effect that you use in Premiere to apply one of these effects.

Step-by-step description of how to use these effects with **Pro-ONE**:

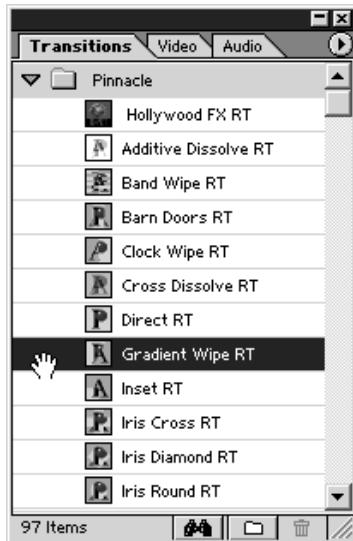
### 1. Prepare the timeline.

First you have to put two video clips on the Video 1A and Video 1B tracks of the Premiere timeline, so that there is some overlap between the two video clips. This is the usual preparation for all kinds of transition effects. The result should be similar to the screenshot below.

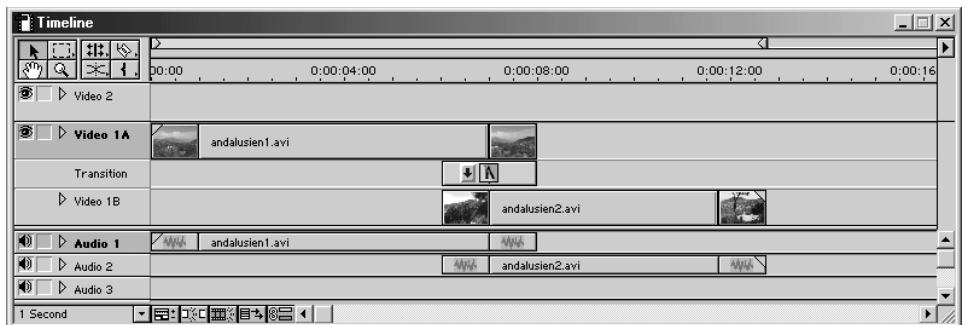


## 2. Add the Gradient Wipe RT transition.

Make sure the Transitions window is visible. If not, select *Show Transitions* from the *Windows* menu.



Drag the Gradient Wipe RT from the Transitions window into the Transition track of the Timeline window so that it is between the two video clips (the transition should automatically snap to fill the time between the two clips).

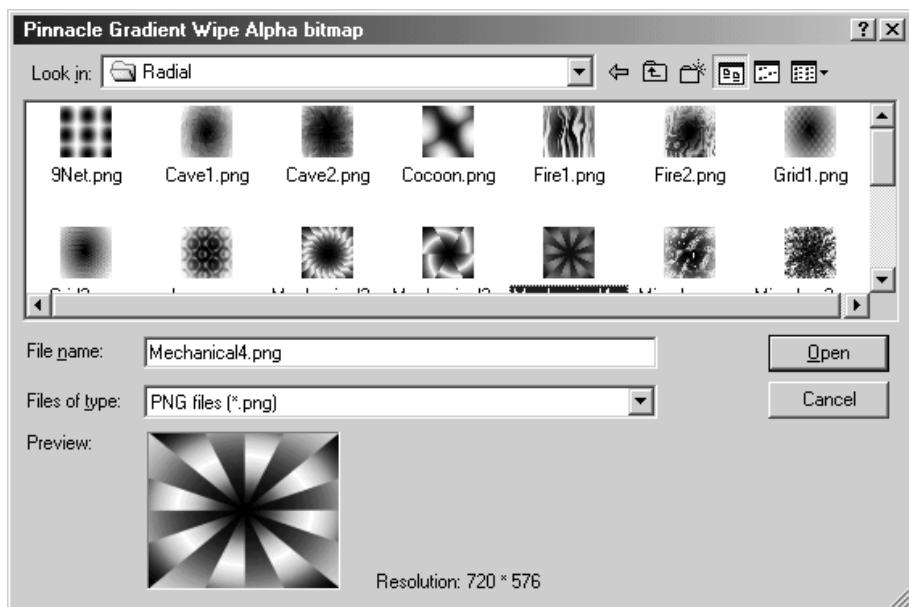


### 3. Select a wipe pattern and adjust the settings.

Double-click on the transition block. The *Gradient Wipe Settings* dialog should appear.



Click on the  button to open the wipe pattern selection dialog. Another way to open this selection is to click into the preview area of the Pinnacle Gradient Wipe dialog.



The Alpha Magic FX are sorted into categories of similar effects.



To get an overview of the Alpha Magic FX and to quickly find the one you need, look into the printed Alpha Magic quick reference guide that is included in the **Pro-ONE** box.

## CREATE YOUR OWN GRADIENTS

You can also create your own patterns. In the following guide we have used Adobe PhotoShop LE for creating patterns. you can also use any graphic editing application as long as it supports the PNG format.

**Preparation** As standard, the Alpha Magic patterns can be found in **c:\Programs\Pinnacle\pro-ONE\AlphaMagic\PAL** or **\NTSC**.

Create your own folder in this directory.

**Creating** To create your own patterns using PhotoShop, proceed as follows:

1. Open Adobe PhotoShop LE.
2. Choose *New* from the *File* menu.
3. In the *New* dialogue box, define the size of the picture depending upon the television standard you are working with:
  - ♦ *PAL*  
Width: 720 pixels and Height: 576 pixels
  - ♦ *NTSC*  
Width: 720 pixels and Height: 480 pixels

Note: If you intend to use the wipes for a production in 16:9 (film format), we would recommend that you create the picture with 1024 × 576 for PAL and 853 × 480 for NTSC. Afterwards, scale this picture to the “normal” format of 720 x 576 (PAL) or 720 x 480 (NTSC) pixels. In this way you will have created the wide-screen format.

Click on *OK*.

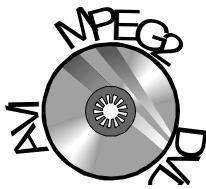
4. From the *Image* menu, select the commands *Mode*, *Grayscale* and *8 bits/channel*. Answer the subsequent question with *OK*.
5. Now create your own pattern.
6. When you have created your pattern, choose *Save As ...* from the *File* menu.

7. Change to the folder that you have created, allocate a file name, choose PNG as the *File format* and click on *Save*
8. The option *None* should be selected in the PNG Options window both for *Interlaced* and for *Filter*. Click on OK. Close the subsequent information box also by clicking on OK.

If you now select Pinnacle Gradient Wipe as the transition in Adobe Premiere and click on the Pattern button, you will find the pattern that you created yourself in your folder. You can also modify already existing patterns by opening, editing and re-saving them in PNG format.



If you would like to create your pattern using a different application, verify that you are able to set up the right picture size and 8 Bit grayscale. It must also be possible to save / export as a PNG file.



# Chapter 14: Exporting Your Movies

**Pro-ONE** provides you with a number of ways of outputting your projects.

- ◆ Output to an **analog video recorder**, whereby the real-time possibilities of **Pro-ONE** can be fully utilized.
- ◆ Output to **DV tape** using a DV camcorder or DV video recorder in full DV quality. With **Pro-ONE RTDV** this is possible in real time. For **Pro-ONE** all effects, filters and titles must first be rendered.
- ◆ Output of the entire project to an **AVI file**. This is useful for archiving and conversion purposes.
- ◆ Output as an MPEG file for creating **DVDs** and / or **MPEG2-CDs**.
- ◆ Output in special **Internet** formats, which are particularly suitable for sending by e-mail or for creating web pages.

## OUTPUT TO ANALOG VIDEO RECORDER

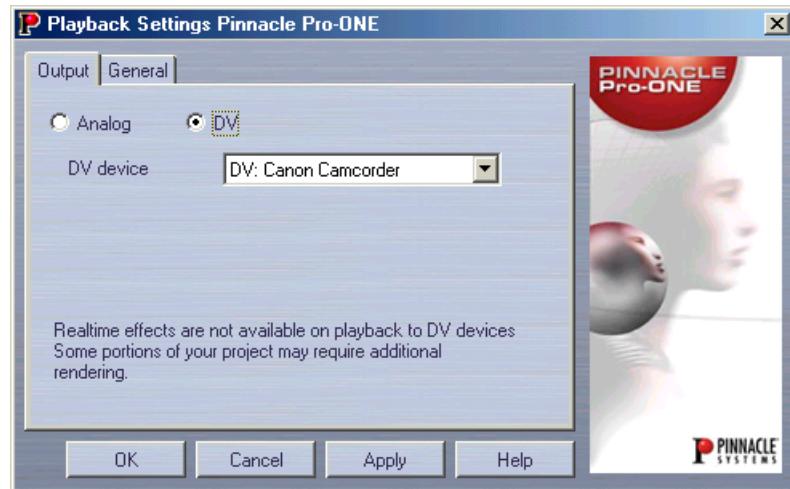
As standard, the **Pro-ONE** video and audio output is taken from the analog outputs of the blackBOX. To make a recording on an analog video recorder it is necessary to connect a video recorder between the blackBOX outputs (composite or S-VHS as well as audio L+R) and the video monitor. It is essential that you note the choice of program position on the video recorder (e.g. AV1).

Now check whether areas of the timeline have to be created. This is indicated by the message *Projec tneeds rendering* in the status line of the Instant Video RT window as well as by thin red lines above the time code display in the editing window.

## OUTPUT TO DV TAPE

**Pro-ONE RTDV** outputs all real time effects not only to the analog but also to the digital outputs.

For **Pro-ONE** on the other hand, some settings must first be made for outputting to DV tape. To do this, in Adobe Premiere click on the *Instant Video RT* window with the right mouse button and choose the *Settings* command. The *Playback Settings Pro-ONE* window will open. Select your DV device in the *Output* tab and confirm the window with *OK*.



These sections also apply to **Pro-ONE** only!

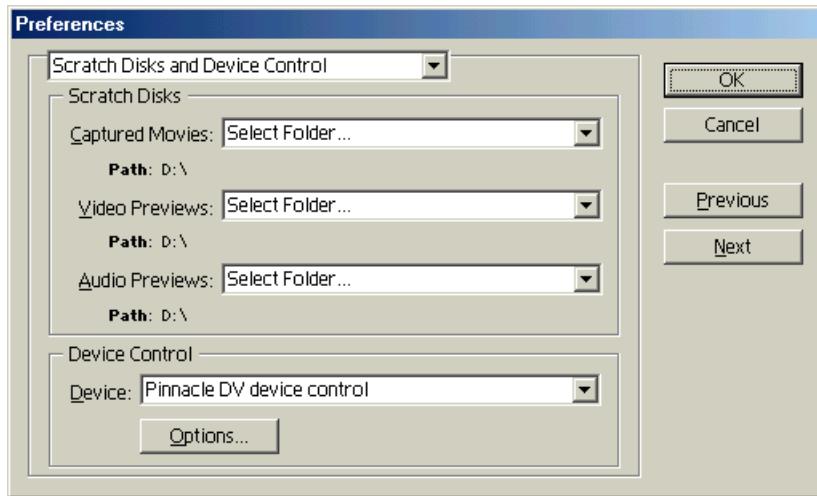
For outputting to DV, all effects, filters and titles must now be rendered – even those that could still be played in real time with the analog output. This is indicated by the message *Project needs rendering* in the status bar of the Instant Video RT window as well as by thin red lines at the top of the Edit window.

Now position the working area (yellow bars in the Edit window) over these areas or even over the whole project and press the <Return> key. This starts the rendering process and subsequently the playing back of the area.

The video project is transferred to the DV device via the FireWire IEEE 1394 interface (DV-IN) by pressing the space bar, wherein the capture function is not set automatically. The video should now be visible on the display of the DV device or on the video monitor connected to it.

## EXPORT TO TAPE

To save the video to DV tape, first ensure that *Pinnacle DV device control* has been selected as the *Device* for the device control in the *Preferences* window (Edit menu, *Preferences, Scratch Disks and Device Control*)



Make sure that the editing window is active and choose the commands *Export Timeline* and *Export to Tape* in the *File* menu.

The creation of the remaining effects will now start. In the *Export to Tape* window that follows, activate the *Activate recording deck* option. This will automatically put the DV device into record mode. If you should already have a video movie on your DV tape, you can specify the start of the recording by additionally activating the *Print to tape options* in the *Timecode* and *Preroll* area. The *Preroll* checkbox allows you to make fine adjustments to the synchronized start of playback and recording.



Brand new DV tapes do not have any time code information. However, they can be given time codes by using the following procedure. Switch your DV device to Camera mode, rewind the tape and press the Record button with the lens covered until the tape has been fully recorded.

Confirm your settings in *Export to Tape* with *OK*. Premiere now switches over to playback mode, instructs the device control to prepare the required operations and starts the playback. After playback has finished, Premiere switches back to editing mode once more. The settings just made are not saved. They must therefore be entered again as required.

## Inaccuracies

### Black frames

If recording has not been started or finished accurately, we would recommend you to use black frames at the start and end of your project. This will ensure that the whole project is recorded. Note that the accuracy is dependent upon the *Export to tape...* function of the DV device used. Pinnacle Systems cannot guarantee that all DV devices support this function with absolute frame accuracy.

**Deviations:** Assume that you want to start editing at time code 01:00:00:00. What is the number of the frame at the start of the cut after the project was transferred? If it was 01:00:00:01 or higher, the clip was started too early. Therefore, you should specify a smaller frame number under *Preroll*. Repeat the test until you are satisfied with the result. If the first frame at the

start of the cut was black or you were able to see repeated frames, the clip was started too late. In this case you must enter a higher frame number under *Preroll*.

**Premiere and time code:** Internally, Adobe Premiere assigns frame numbers to your recorded clips rather than actual time codes (this applies to all versions of Adobe Premiere). Frame numbers are any automatically rounded up numbers. However, as one and the same frame number can correspond to one of three different time code values depending upon the time code format used, there can be problems if the correct time code format is not set up.

This can be important in the following situations:

- ♦ You enter a batch list manually with the wrong time code format.
- ♦ You use the Premiere logging function in the video recording window (*File, Capture, Movie Capture*) without a device controller.
- ♦ The time code format in the video recording window does not match the actual tape format that is currently being recorded.

This can give rise to various errors. Here are a few examples:

- ♦ Error message: “Time code not found”.
- ♦ The time code on your clip is offset by a few seconds.
- ♦ Recorded clips start with an incorrect time code. The reason for this is quite simple: If, for example, a time code of 01:00:00:00 is chosen for the starting point, Adobe Premiere can interpret this value depending upon the format of the digitized video as:
  - ♦ NTSC (NDF time code) 108,000 frames
  - ♦ NTSC (DF time code) 107,892 frames
  - ♦ PAL 90,000 frames.

New with Premiere is the possibility of displaying the time code of your clip and monitor window in different ways, some of which might however be misleading. Again this can lead to errors, particularly if you try to calibrate the discrepancy in your time code or to enter a batch capture list manually.

Premiere allows you to adapt the time format of the monitor window or of the clip window to suit. However, this does not affect the video recording window. In this case, the setting is a general one, which is not automatically changed when you load a clip with a different format. The fact that the time base of a clip can also be displayed incorrectly makes the rapid determination of the time code format of a clip even more difficult.

If you want to determine the actual time code format of a clip, you must call up the command *Get Properties For* from the *File* menu while the clip in question is being displayed in the monitor or clip window.

You can find further information on this subject in the Adobe Premiere manual.

## DV time code

DV devices use a drop frame or DF time code (NTSC only). This cannot be preset to a particular value. New tapes therefore always start with 00:00:00:00. However, this is exact and provides unambiguous values for individual frames. Choose *Drop-Frame Timecode* in the Premiere project presets when you are working with DV material.

## Drop-Frame Timecode

NTSC-Video (the U.S. American standard) is based on 30 frames per second – almost. The exact frame rate is 29.97 frames per second, which is equivalent to an error of 3% per second. For this reason the DF system was developed, in which 2 frames are skipped each minute – with the exception of every 10<sup>th</sup> minute. An important reason for using the DF time code is the more accurate timing with long videos.

In figures, this can be seen as follows:

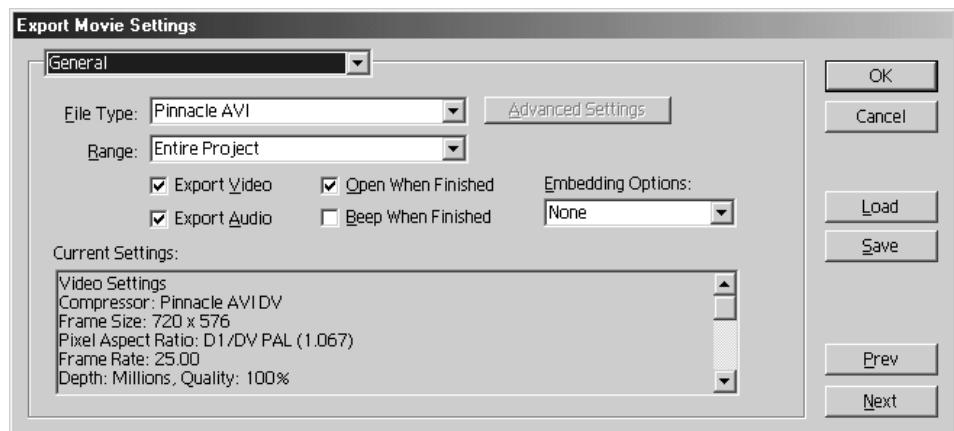
Non Drop	Drop
00:01:00;00	⇒ 00:01:00;02
00:01:00;01	⇒ 00:01:00;03

## OUTPUT AS AVI FILE

**Pro-ONE** allows the entire project to be exported into a single AVI file. This is particularly useful for archiving purposes.

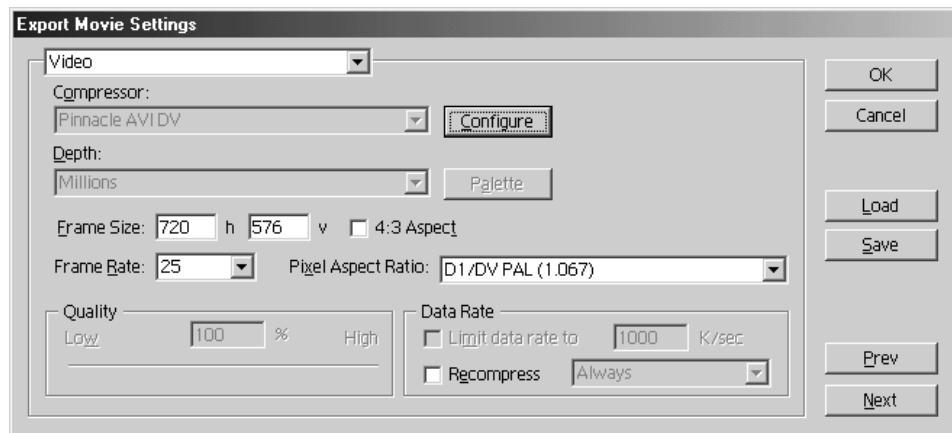
For AVI export, in Adobe Premiere choose the commands *Export Timeline* and *Movie* in the *File* menu. In the window that follows, you can specify the target directory and the file name. Click on the *Settings* button.

In the *Export Movie Settings* window, click on the *Load* button.

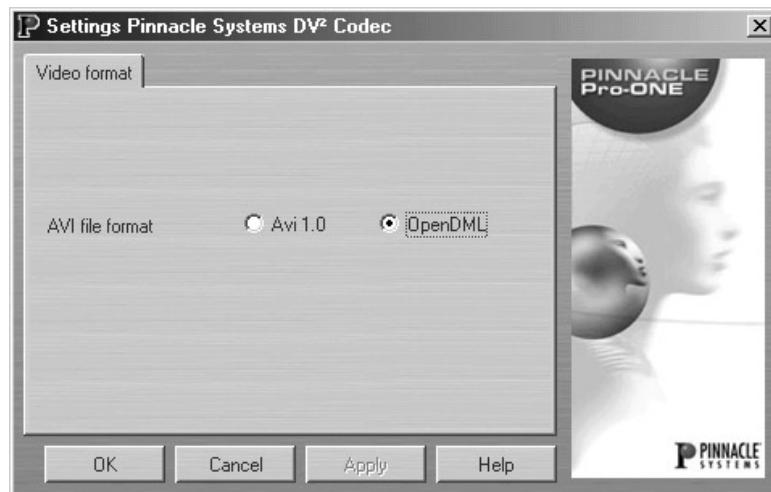


In the following dialog, all presets are listed on the left and in the directory *Pinnacle Pro-ONE - NTSC* and *Pinnacle Pro-ONE - PAL* you will find the presets *Pinnacle DV PAL* and *Pinnacle DV NTSC* respectively. Choose one of these presets—depending upon the video standard of your project – and then confirm with *OK*.

You will now be back in the *Export Movie Settings* dialog. In the pull down menu (*General* is currently shown), choose *Video*. Click on the *Configure* button.



The window *Settings Pinnacle Systems DV<sup>2</sup> Codec* will open. Here, the option *OpenDML* is the default for the *AVI file format*.



The *AVI File format* option only appears when *Pinnacle AVI DV* is chosen as the compressor.

### AVI file format

#### AVI 1.0

If you want to import an AVI into a software program that does not support the *OpenDML* format (AVI files that are larger than 2 GByte), activate the check box *AVI 1.0*.

#### OpenDML

If you activate the *OpenDML* option, you can record AVI files that are larger than 2 GByte.

Please note that Windows 98 SE and Windows Me limit files to a maximum of 4 GByte. If you use Windows 2000 or Windows XP **and** the file system NTFS, then files can be up to 12 TBytes long.



Confirm the window with *OK*.

Next, confirm the *Export Movie Settings* window with *OK*. After entering the file name, confirm the *Export Movie* window with *Save*.

The creation of the video project will start. When the calculation is complete, the clip window will open and the AVI file can be played back by clicking on the *Play* button. The video will be displayed depending on the choice of video output (*Instant Video RT, Settings*, on the *Video output* tab: *Analog* or *DV*).

## OUTPUT FOR DVD AND MPEG2-CD

With **Pro-ONE** not only can you output your project to tape but you can also create DVDs and MPEG2-CDs.

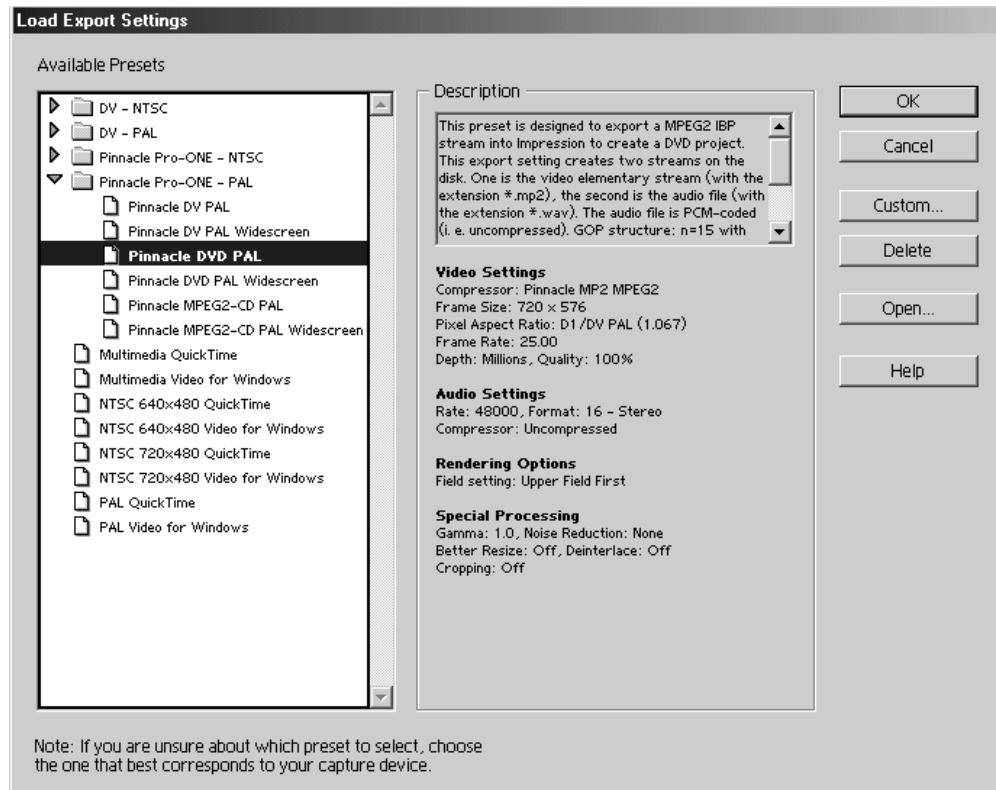
First an overview of the whole process:

- ◆ Your project is written into an MPEG2 file by means of an MPEG2 export. MPEG2 is a particularly effective compression format. A video in MPEG2 format takes up less space than DV video but still has outstanding quality.
- ◆ The MPEG2 file and the associated audio file are now imported into Impression DVD SE. Here you can arrange the material and insert additional interactive menus.
- ◆ Impression DVD SE can control your CD burner directly for the creation of DVDs. MPEG2-CDs can be played back on fast PCs but not in DVD players.
- ◆ Impression DVD SE creates a so-called image for the creation of DVDs, i.e. a collection of all files, which are then burned onto a blank CD using DVD burning software.

First make sure that the Pinnacle Impression DVD SE authoring software provided with **Pro-ONE** has been installed.

In Adobe Premiere, choose the commands *Export Timeline* and *Movie* in the *File* menu. In the window that follows, you can specify the target directory and the file name. Click on the *Settings* button.

In the *Export Movie Settings* window, click on the *Load* button. In the following dialog, all presets are listed on the left and in the directory *Pinnacle Pro-ONE - NTSC* and *Pinnacle Pro-ONE - PAL* you will find a range of presets for DVD and MPEG2-CD. Here, choose the appropriate preset depending upon the video standard of your project and the target format DVD or MPEG2-CD.



You should select the preset for Widescreen if your project has been created in 16:9 format.

Confirm this and the previous dialog with *OK*.

You will now be back in the *Film export* dialog. Here, enter a name for the file and confirm with *Save*. The export process will now begin.



Depending upon the performance of your PC and the number of effects that you have used, the MPEG2 export process lasts two to ten times as long as the length of your project.

As the result of the export you will get two files. The first file with the ending *.MP2* contains the video of your project. The sound will be saved in the second file with the ending *.WAV* for DVD production or *MPA* for MPEG2-CDs. You can now import both files in Impression DVD SE in order to continue with the creation of your DVD or CD.

# OUTPUTTING INTERNET FORMATS

With **Pro-ONE** you can also export your project in formats that are particularly suitable for e-mail or web pages.

To do this, first choose *Export Movie Settings* in the Premiere *File* menu and then one of the options for *RealVideo* or *Microsoft Windows Media*.

You will find more details on these export possibilities in the Adobe Premiere manual.

## ADVANCED EXPORT SETTINGS

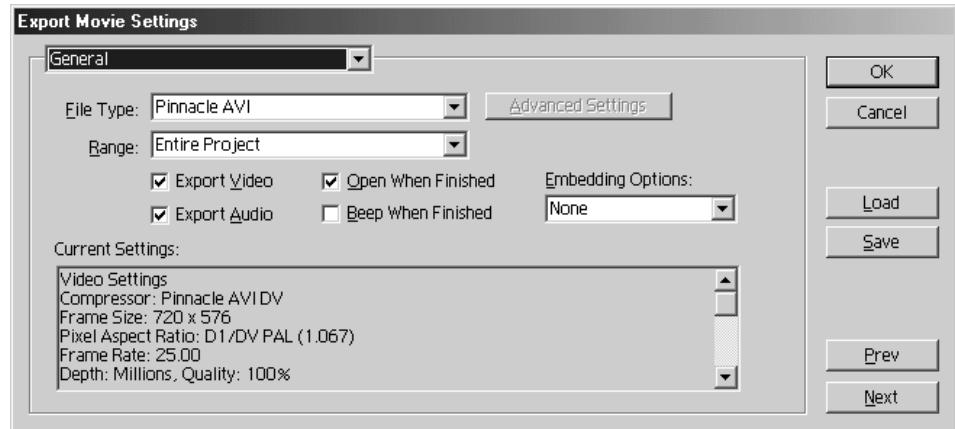
If the Pinnacle export project presets available do not meet your particular requirements, you can configure the MPEG2 or AVI export in several ways.

However, this section only deals with the settings that are typical for **Pro-ONE**. If you would like more details, please refer to the appropriate Adobe Premiere manual.



It is considerably more convenient to load an export project from Pinnacle and to modify the settings afterwards than to try to make all the settings yourself from first principles.

### Export Movie Settings - General

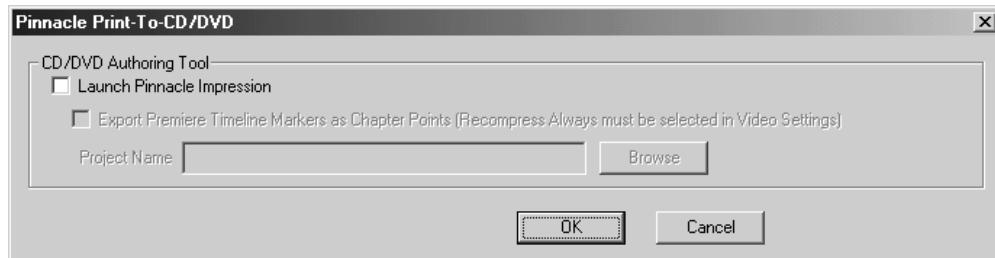


### File Type

For exporting to MPEG2 in MP@ML format, choose the project preset *Pinnacle DVD* or *Pinnacle MPEG2-CD* (PAL or NTSC), which is suitable for DVD and MPEG2-CD-based authoring tools. For exporting a DV-coded AVI file, choose the project preset *Pinnacle DV* (PAL or NTSC). If you want to export an AVI file with the help of a software compressor, choose the entry *Microsoft AVI*.

## Advanced settings

When *Pinnacle DVD PAL* or *Pinnacle MPEG2-CD* is selected, the *Advanced Settings* button becomes active and clicking on this button will open the *Pinnacle Print to CD/DVD* dialog window. In this window, you can start Pinnacle Systems Impression DVD SE automatically and divert the exported file appropriately.



### Starting Pinnacle Systems Impression

If this check box is activated, Pinnacle Systems Impression DVD SE will be started automatically as soon as the export process has been completed.

### Export Premiere Timeline Markers as Chapter Points

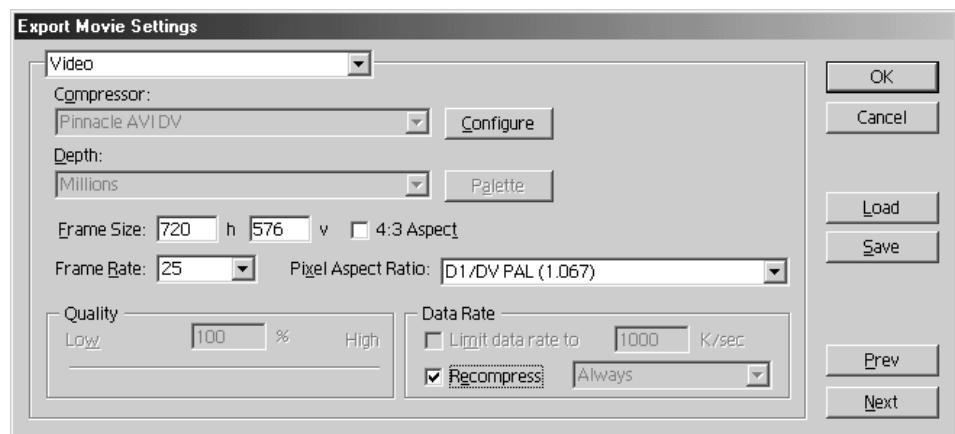
If this check box is activated, all markers set within the framework of the current movie project will be transferred to Pinnacle Systems Impression DVD SE and used there as bookmarks.

### Project Name

The name contained in this text field corresponds to the project file used by Pinnacle Systems Impression DVD SE. You can also choose a project that already exists by clicking on the *Browse...* button. In this case, the exported MP2/WAV files would be added on to the end of the project.

If the text field on the left-hand side is blank, a new project will be created with the name of the respective MP2/WAV file.

## Export Movie Settings - Video



### Compressor

The compressor for exporting AVI and MP2 files has already been chosen in accordance with the *File Type* setting under *General* in this dialog window. If you have chosen *Microsoft AVI* for this entry, you can choose and configure the required software compressor at this point.

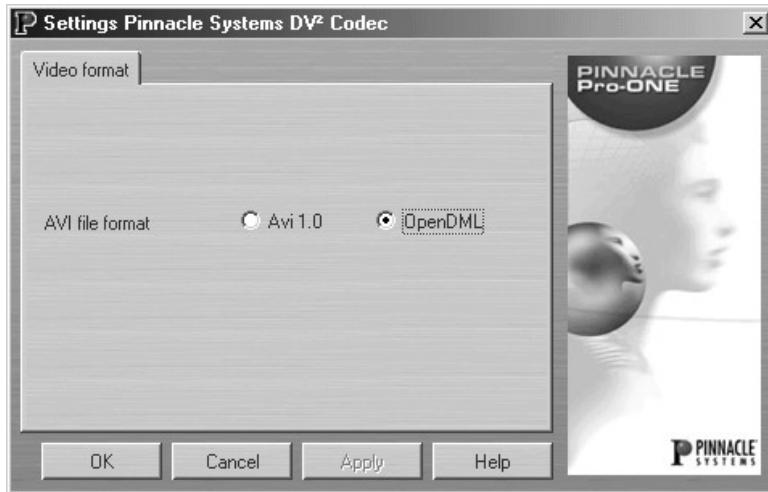
### Recompress

When activated, this option compresses the whole of the material on the time line once more for exporting. This means that all video sections must be decoded and subsequently recorded, a time-consuming process, which is not usually necessary.

### Configure

Click on the *Configure* button to open the dialog window for the settings, which you can use to specify the details of your MPEG2 compression. In doing so, different fields in this dialog widow will be activated as appropriate depending upon your choice of AVI or MPEG2 file export.

## AVI Format



*Pinnacle AVI DV compressor*



The *AVI file format* option will appear only when *Pinnacle AVI DV* has been chosen as the compressor.

### AVI file format

#### AVI 1.0

If you want to import an AVI into a software program that does not support the *OpenDML* format (AVI files that are larger than 2 GByte), activate the check box *AVI 1.0*.

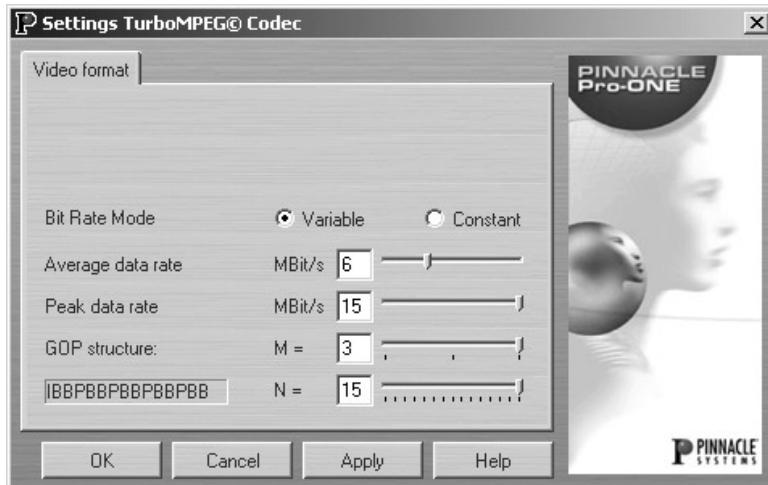
#### OpenDML

If you activate the *OpenDML* option, you can record AVI files that are larger than 2 GByte.



Please note that Windows 98 SE and Windows Me limit files to a maximum of 4 GByte. If you use Windows 2000 or Windows XP and the file system NTFS, then files can be up to 12 TBytes long.

## MP2 Format



*Pinnacle DVD or Pinnacle MPEG2-CD compressor*



The options *GOP length (N)* and *Reference frame period (M)*, the display of the *GOP structure* and the choice for the *Data rate* and the *Bit rate mode* are only available if you have chosen *Pinnacle DVD* or *Pinnacle MPEG2-CD* for the compressor.

### Bit rate mode

#### *Variable*

If the *Variable* option is activated, the **Pro-ONE** encoder will try to maintain the quality of the compressed material constant. In doing so, the data rate set represents the maximum upper limit.

#### *Constant*

If you activate the *Constant* option, the video sequences will be recorded at exactly the data rate set. In doing so, the quality can vary.

### Average data rate / Peak data rate

When exporting in MP2 format the quality is not determined by the data rate alone but also by the GOP structure. As a rule, it is true to say that for a greater choice of P and B frames for the GOP structure, the data rate required for a given quality decreases.

The DVD standard allows a maximum data rate of 9.8 Mbit/s both for the video and **also for the audio components**. Note that the data rate chosen in this dialog window refers purely to the video component. For a stereo audio track of 48 kHz 16-Bit PCM codec, an additional data rate of 1.536 Mbit/s is required so that in our case the video portion must not lie above 8 Mbit/s.

The higher the data rate the less material will fit onto your DVD. We recommend 6 Mbit/s as average data rate.

For the production of your MPEG2-CDs you should use lower data rates such as 4 Mbit/s, for example, as the transfer rates of CD drives can be slow and the capacity of a CD-ROM is noticeably less than that of a DVD.

Which average and peak data rate you set depends furthermore on the nature of your video material. The average data rate can in no circumstances exceed the maximum data rate. The values lie between 2 and 15.

### Reference frame period (M)

Using the slide control *M*, set how many B-frames are required before a reference frame (P-frame) is to appear. The default is 3, which together with a GOP length of 15 (see above) and a data rate of 8 Mbit/s corresponds exactly to the DVD standard.

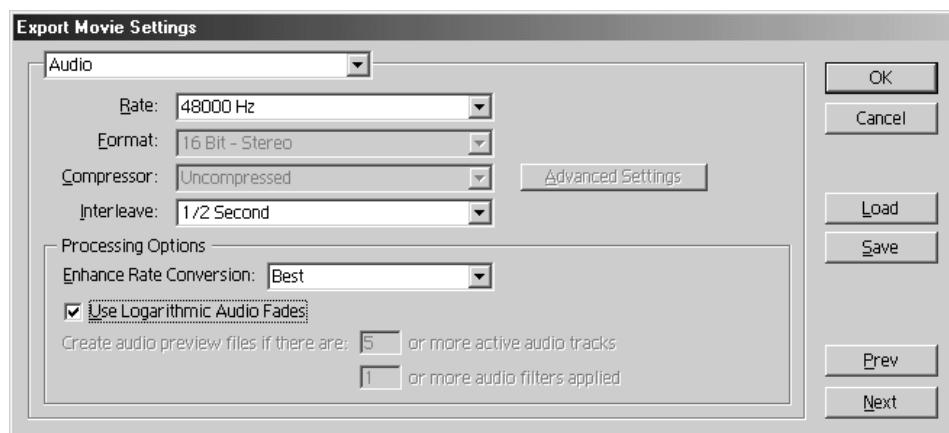
### GOP length (N)

Using the slide control  $N$  you can set the length of the GOP (Group Of Pictures). The default is 15.

The structure of the GOP is displayed.

For exporting to DVD or MPEG2-CD, we recommend the settings  $N=15$  and  $M=3$ , as these can achieve the highest possible quality for a given data rate.

### Export Movie Settings - Audio



### Type (for exporting in accordance with MP2)

Choose *Uncompressed* in order to export an uncompressed PCM audio file (WAV) alongside the MP2 video file. Choose *Pinnacle MPEG1 Layer2* in order to export a compressed MPEG2 audio file (WAV) alongside the MP2 video file.

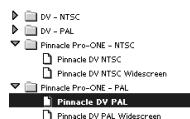


Please use uncompressed audio for creating DVDs, as some DVD players are not able to reproduce MPEG1 Audio.

For creating MPEG2-CDs, MPEG1 compression is the better choice, as it reduces the data rate by a factor of 8 and yet provides CD music quality in spite of this.

# Part III - Tools, Tips & Utilities

**In Part III of this User's Guide you will find the description of the **Pro-ONE** Tools, and some useful hints.**



## Pinnacle Presets



## Pro-ONE Control

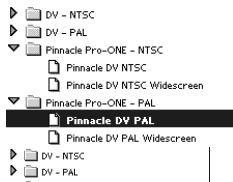


## Instant Video RT



## Editing Widescreen Projects





# Chapter 15:

## Pinnacle Presets

### PINNACLE PRESETS

The Pinnacle presets included with **Pro-ONE** contain settings that guarantee an optimal operation of **Pro-ONE** and Adobe Premiere. In the *Load Project Settings* window you can select one of the following presets.

#### Pinnacle DV PAL

For high quality PAL editing with the maximum resolution and highest audio quality. We recommend this setting for all production targets (analog tape, DV tape, DVD, MPEG-2-CD).

Video: PAL 720x576; 25 fps; 25 Mbit/s; Audio: 48 kHz; 16 bit; stereo.

#### Pinnacle DV PAL Widescreen

For high quality 16x9 PAL editing with the maximum resolution and highest audio quality. We recommend this setting for all production targets (analog tape, DV tape, DVD, MPEG-2-CD).

Video: PAL 720x576; 25 fps; 25 Mbit/s; Audio: 48 kHz; 16 bit; stereo.

#### Pinnacle DV NTSC

For high quality NTSC editing with the maximum resolution and highest audio quality. We recommend this setting for all production targets (analog tape, DV tape, DVD, MPEG-2-CD).

Video: NTSC 720x480; 29.97 fps; 25 Mbit/s; Audio: 48 kHz; 16 bit; stereo

#### Pinnacle DV NTSC Widescreen

For high quality 16x9 NTSC editing with the maximum resolution and highest audio quality. We recommend this setting for all production targets (analog tape, DV tape, DVD, MPEG-2-CD).

Video: NTSC 720x480; 29.97 fps; 25 Mbit/s; Audio: 48 kHz; 16 bit; stereo

## PINNACLE EXPORT PRESETS

The Pinnacle presets included with the **Pro-ONE** contain settings that guarantee an optimal export of your project. You can select one of the following export presets.

### Pinnacle DVD PAL

This preset is specifically designed for export of MPEG-2 PAL IBP streams to Pinnacle Systems Impression for DVD production. This export setting creates two streams on your disk. One is the video elementary stream (with the extension \*.mp2), the second is the audio file (with the extension \*.wav). The audio file is PCM-coded (i. e. uncompressed). The video stream is compressed with a GOP length of n=15 with m=3. The data rate is DVD compliant.

Video: PAL 720x576; 25 fps; 6 Mbit/s CBR; Audio: 48 kHz; 16 bit; stereo

### Pinnacle MPEG2-CD PAL

For the creation of an MPEG-2-CD with Pinnacle Systems Impression CD-Pro. This setting also exports video elementary streams and a separate MPA audio file with MPEG1 layer 2 compressed stereo audio at 48 kHz. This audio compression requires only 192 Bit/sec (0.1875 Mbit/sec), which improves the playback performance and increases the capacity of the CD.

Video: PAL 720x576; 25 fps; 4 Mbit/s CBR; Audio: 48 kHz; stereo; MPEG1 layer 2 (0.188 Mbit/s)

### Pinnacle DVD PAL Widescreen

This preset is specifically designed for export of MPEG-2 16x9 PAL IBP streams to Pinnacle Systems Impression for DVD production. This export setting creates two streams on your disk. One is the video elementary stream (with the extension \*.mp2), the second is the audio file (with the extension \*.wav). The audio file is PCM-coded (i. e. uncompressed). The video stream is compressed with a GOP length of n=15 with m=3. The data rate is DVD compliant.

Video: PAL 720x576; 25 fps; 6 Mbit/s CBR; Audio: 48 kHz; 16 bit; stereo

### Pinnacle MPEG2-CD PAL Widescreen

For the creation of an 16x9 MPEG-2-CD with Pinnacle Systems Impression CD-Pro. This setting also exports video elementary streams and a separate MPA audio file with MPEG1 layer 2 compressed stereo audio at 48 kHz. This audio compression requires only 192 Kbit/sec (0.1875 Mbit/sec), which improves the playback performance and increases the capacity of the CD.

Video: PAL 720x576; 25 fps; 4 Mbit/s CBR; Audio: 48 kHz; stereo; MPEG1 layer 2 (0.188 Mbit/s)

### **Pinnacle DVD NTSC**

This preset is specifically designed for export of MPEG-2 NTSC IBP streams to Pinnacle Systems Impression for DVD production. This export setting creates two streams on your disk. One is the video elementary stream (with the extension \*.mp2), the second is the audio file (with the extension \*.wav). The audio file is PCM-coded (i. e. uncompressed). The video stream is compressed with a GOP length of n=15 with m=3. The data rate is DVD compliant.

Video: NTSC 720x480; 29.97 fps; 6 Mbit/s CBR; Audio: 48 kHz; 16 bit; stereo

### **Pinnacle MPEG2-CD NTSC**

For the creation of an MPEG-2-CD with Pinnacle Systems Impression CD-Pro. This setting also exports video elementary streams and a separate MPA audio file with MPEG1 layer 2 compressed stereo audio at 48 kHz. This audio compression requires only 192 Kbit/sec (0.1875 Mbit/s), which improves the playback performance and increases the capacity of the CD.

Video: NTSC 720x480; 29.97 fps; 4 Mbit/s CBR; Audio: 48 kHz; stereo; MPEG1 layer 2 (0.188 Mbit/s)

### **Pinnacle DVD NTSC Widescreen**

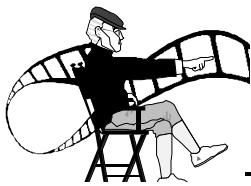
This preset is specifically designed for export of MPEG-2 NTSC IBP streams to Pinnacle Systems Impression for DVD production. This export setting creates two streams on your disk. One is the video elementary stream (with the extension \*.mp2), the second is the audio file (with the extension \*.wav). The audio file is PCM-coded (i. e. uncompressed). The video stream is compressed with a GOP length of n=15 with m=3. The data rate is DVD compliant.

Video: NTSC 720x480; 29.97 fps; 6 Mbit/s CBR; Audio: 48 kHz; 16 bit; stereo

### **Pinnacle MPEG2-CD NTSC Widescreen**

For the creation of an MPEG-2-CD with Pinnacle Systems Impression CD-Pro. This setting also exports video elementary streams and a separate MPA audio file with MPEG1 layer 2 compressed stereo audio at 48 kHz. This audio compression requires only 192 Kbit/sec (0.1875 Mbit/s), which improves the playback performance and increases the capacity of the CD.

Video: NTSC 720x480; 29.97 fps; 4 Mbit/s CBR; Audio: 48 kHz; stereo; MPEG1 layer 2 (0.188 Mbit/s)



# Chapter 16:

## Pinnacle Pro-ONE Control

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The Pinnacle **Pro-ONE** Control is a control panel available within Adobe Premiere to adjust input and output settings of your **Pro-ONE** hardware.

### Starting the **Pro-ONE** Control

The **Pro-ONE** Control can only be started from inside Adobe Premiere.

*For the input options,*

select the *File* menu and the commands *Capture* and *Movie Capture*. The *Movie Capture* window appears. Click on the *Edit...* button from the *Settings* tab to launch the *Capture Project Settings* Window. Now click the *Settings...* button to open the **Pro-ONE** Control.

The **Pro-ONE** Control will open with tabs that allow you to set input options.

*For the output options,*

click with the right mouse button into the **INSTANT** Video RT window and select the *Settings...* command.

The **Pro-ONE** Control offers the following tabs to modify your settings.

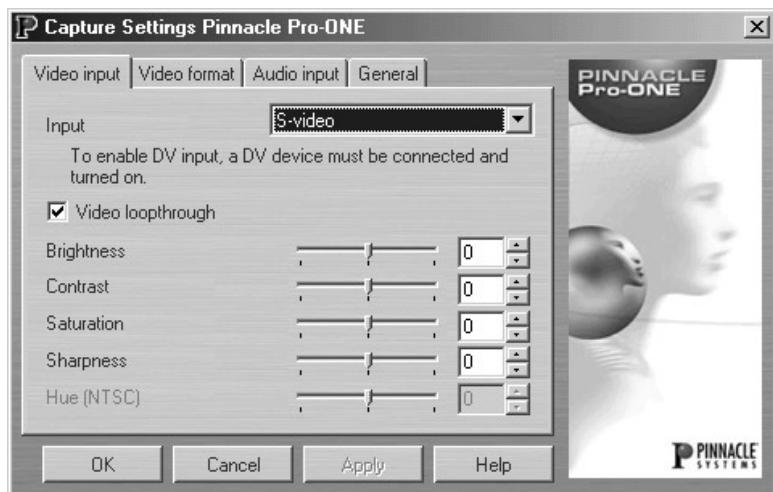
- ♦ Video input
- ♦ Video format
- ♦ Audio input
- ♦ Output
- ♦ General.



You will see different tabs, depending on whether you invoked the **Pro-ONE** Control from the *Capture* window or from *Instant Video RT*. For example, from *Instant Video RT*, only the *Output* and *General* tabs will be available.

## SETTINGS—VIDEO INPUT

The video input tab allows you to specify all settings concerning the video inputs.



### Input

Determine the connector of the connected video source: *S-Video*, *Composite* or *DV device*. The last choice is only available if a DV device is connected to Pinnacle **Pro-ONE** via the DV connectors and turned on.

If the DV device is known, its name will appear in the listbox.

Several sources can be connected at the same time, but only the selected signal will be captured.

### Video loopthrough

The *Video loopthrough* checkbox is enabled by default. If your player is at the same time the recording device, i.e. it is connected to the video input as well as to the video output, you need to deactivate the *Video loopthrough* checkbox in order to avoid video feedback.

If a DV device is selected, this option is not available.

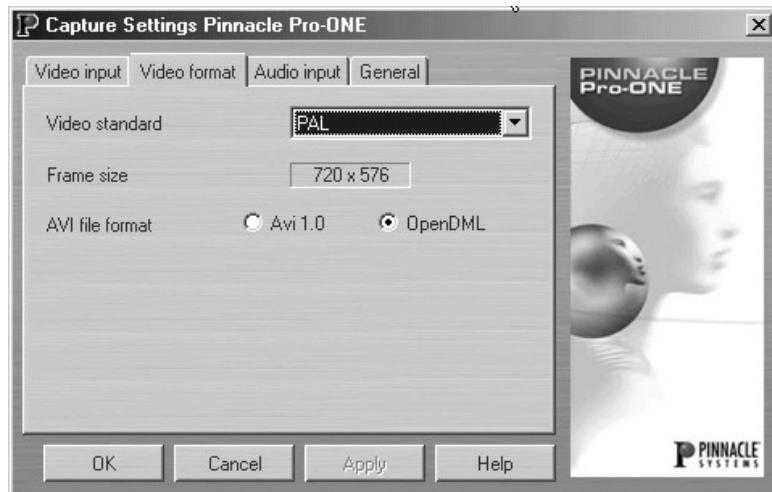
### Brightness / Contrast / Sharpness / Saturation / Hue

Allows you to modify the *Brightness*, the *Contrast*, the *Sharpness* and the *Saturation*. For NTSC, you can also change the *Hue*, for PAL, this choice is not available.

All of these settings apply to analog sources only. If a DV device is selected, these options are not available.

## SETTINGS—VIDEO FORMAT

This tab contains settings related to the video format.



### Video standard

Here, you determine the video standard of the connected video source: PAL or NTSC. The default setting is the video standard that you have selected during the installation of Pinnacle **Pro-ONE**.

### Frame size

The frame size of **Pro-ONE** is 720 x 480 for NTSC and 720 x 576 for PAL video. These sizes are determined by the DV standard and cannot be changed.

### AVI file format

#### AVI 1.0

If you want to import an AVI file into an application that does not support the *OpenDML* option, activate the *AVI 1.0* checkbox.

#### OpenDML

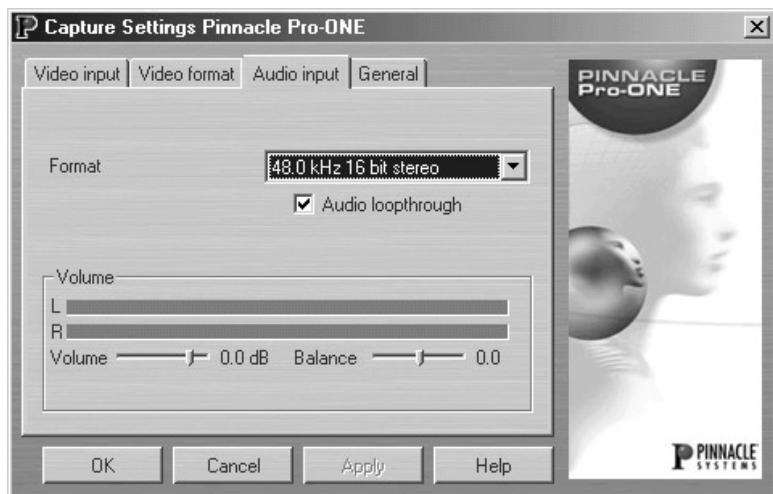
If you activate the *OpenDML* format, you can capture AVI files that exceed the 2 GB limitation.



Both Windows 98 SE and Windows Me limit the maximum size of any file to 4 GB. If you use Windows 2000 or Windows XP **and** the file system NTFS, then files can be up to 12 TBytes long.

## SETTINGS—AUDIO INPUT

This tab allows you to specify audio input settings.



### Format

Here, you select the format for audio recording of the video sequence.

#### Analog source

If an analog video source is selected, then you can select an audio format in the list box. For most purposes, we recommend 48.0 kHz 16 bit stereo.

#### DV source

If a DV device is selected for the video input, then the audio format is detected automatically from the contents of the DV tape. The list box will not be visible.

### Audio loopthrough (for analog sources only)

The *Audio loopthrough* checkbox is enabled by default. If your player is also the recording device, i.e. it is connected to the audio input as well as to the audio output, you need to deactivate the *Audio loopthrough* checkbox in order to avoid audio feedback.

### DV Channel (for 32 kHz only)

This option is only visible if a DV device is selected as the video input.

By selecting the option button 1 or 2, you determine whether the input signal will be recorded from channel 1 or channel 2. Note that DV devices provide two audio channels only if you selected 32 kHz 12 bit audio on your DV equipment at recording time.

### Volume and Balance (for analog sources only)

Moving the sliders Volume and Balance you can select the audio input level and balance. It should be set so that the VU meter stays in the green and yellow areas.

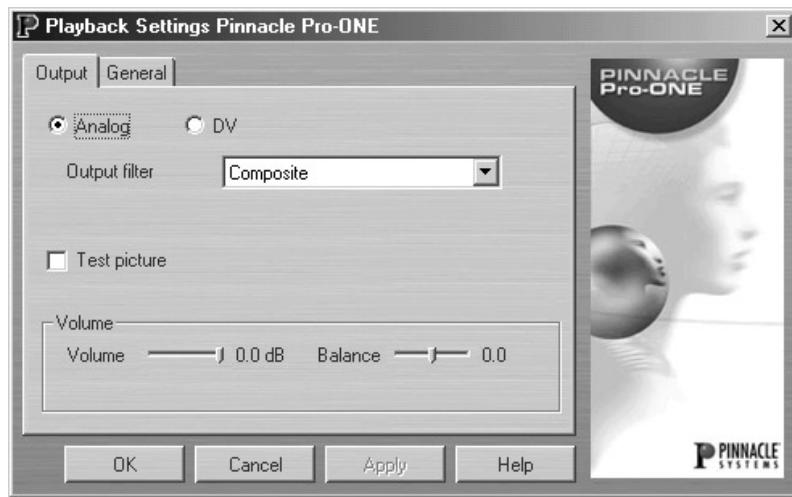
## Peakmeter

If an analog input is selected, a peakmeter displays the audio level.

# SETTINGS—OUTPUT

The *Output* tab lets you determine the output settings for video and audio. The appearance of the *Output* tab varies according to the connected video device: analog (S-video / Composite video) or digital (DV device).

**Output tab  
(analog device)**



## Output filter

Here, you select if the output filter is optimized for the S-Video or the Composite video output. Set this option according to the output you connected your recorder to. Note that all outputs will always show the video signal, but the one selected here will provide the best-quality signal.

When outputting to a DV device, this option will not influence the filtering.

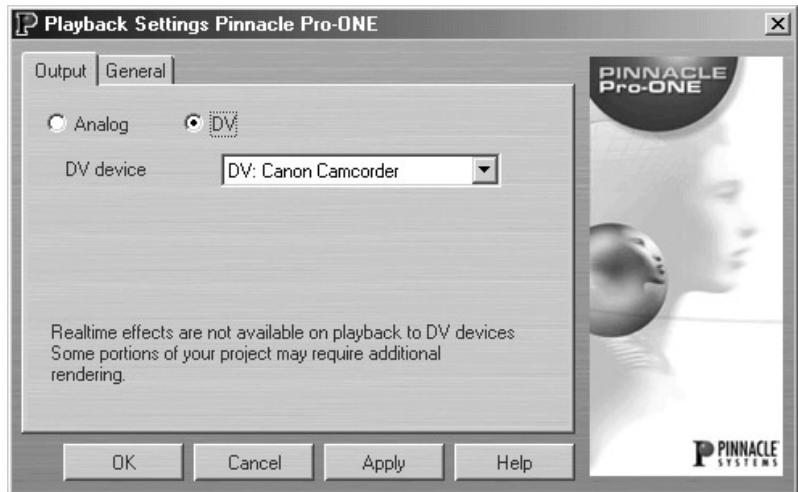
## Test picture

If the checkbox *Test picture* is activated the internal test picture of the encoder will appear on the S-Video and composite video outputs. The test picture will never appear on the DV output.

## Volume and Balance

Through adjusting the sliders *Volume* and *Balance*, you can select the audio output and balance level. Both sliders can be moved independently of each other.

**Output tab  
(DV device)**



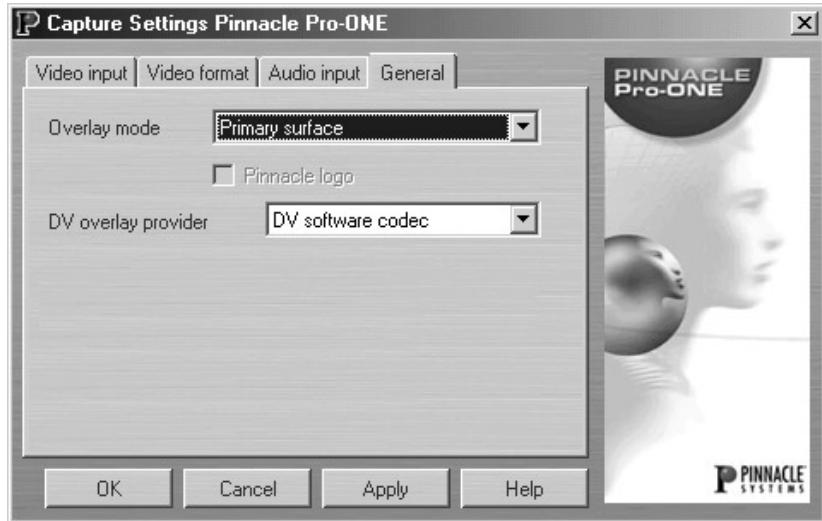
**DV device**

If you connect more than one DV device to the 1394 outputs of Pinnacle **Pro-ONE**, then this list box allows you to select one device to output to.

If no DV device is connected, the setting *Software DV Playback Device* will be shown to indicate that video is displayed only in the Premiere monitor window.

## SETTINGS—GENERAL

This tab allows you adjust settings that apply to the general operation of Pinnacle **Pro-ONE**.



**Overlay mode**

This setting determines the way that video is displayed in Adobe Premiere, for example in the monitor window. This video display is achieved by data that is transferred from the Pinnacle **Pro-ONE** hardware directly to the graphics adapter of your PC. Three settings are provided to achieve maximum compatibility with a large variety of graphics adapters.

- ♦ *Overlay Surface*  
As the overlay surface can be produced with a considerable less amount of system resources and additionally without any limitations to the resolution, you should generally—if your graphics board supports it—activate the *Overlay Surface*.
- ♦ *Primary Surface*  
Use this option if your graphics board does not support the Overlay Surface or if you notice that buttons or other screen elements to not get displayed correctly.
- ♦ *Off*  
There is no video display on the PC screen during recording and playback. This may be your only option if your graphics adapter is not compatible at all with Pinnacle **Pro-ONE**.

### **Pinnacle logo**

If you activate the *Pinnacle logo* checkbox, the Pinnacle logo will be displayed during recording and playback. This setting is available only if you selected *Overlay Surface* as the mode. Note that the logo is seen on the PC screen only, it will not show on the video outputs nor will it get recorded with the video when you capture.

### **DV Overlay Provider**

This option is only available when you open the **Pro-ONE** Control from the Capture window and if a DV device is selected as the video input. It allows you to change the way that a video display is provided in the Premiere Capture window.

#### *DV software codec*

The overlay will be displayed using the 1394 input and a software decode. This option may not show the full frame rate and quality on slower PCs.

#### *S-Video*

The overlay is taken directly from the S-video source input of the blackBOX.

#### *Composite*

The overlay is taken directly from the Composite video source input of the blackBOX.



If you want to use the options *S-Video* or *Composite*, then it is required to connect an analog output of your DV device to the appropriate input of the **Pro-ONE** blackBOX. Do this **in addition** to the 1394 connection. Capture will still be done through the digital I/O, preserving the full DV signal quality.



# Chapter 17: Instant Video RT

## WHAT IS INSTANT VIDEO RT?

Instant Video RT is the Pinnacle **Pro-ONE** playback engine.

Whenever you work with a Premiere project, the Instant Video RT engine makes sure that your workflow is perfectly fast and smooth.

### Instant Video RT

- Performs real time playback of effects and effect combinations wherever possible.
- It uses highly optimized disk access and caching functions to ensure maximum data throughput.
- It sends the timeline playback directly to your video monitor or TV.
- It controls the hardware-accelerated rendering of effects that do not play in real time.

## THE INSTANT VIDEO RT WINDOW

The presence of the Instant Video RT window indicates that this engine is active and also gives you status information and allows you to change output settings.



Make sure that the Instant Video RT window is there—you see it on your PC screen after opening a Premiere project using one of the Pinnacle project presets like “Pinnacle DV PAL” or “Pinnacle DV NTSC”.

Also make sure that a video monitor or TV set is connected to the analog outputs of the Pinnacle **Pro-ONE** blackBOX. This will give you a much higher quality preview of your project than watching the video on the PC screen.

If you do not see this window, please refer to the “Troubleshooting” chapter as of page III.

## Working with Instant Video RT

Create a Premiere project with clips and transitions. Now play the timeline—and Instant Video RT will automatically be engaged, will do effects in real time and will send the playback to your video monitor or TV set.

Whenever you play or scrub the Premiere timeline or a clip window, Instant Video RT will make sure that playback is smooth and effects play in real time wherever possible. With video output set, playback will be both on your video monitor screen and within the Premiere video window. Audio will be output through the blackBOX to your video monitor and through the supplied adapter cable to your sound board. Timeline layback can be directly recorded it to video tape

### Indicators and controls in the Instant Video RT window

#### Minimize / maximize



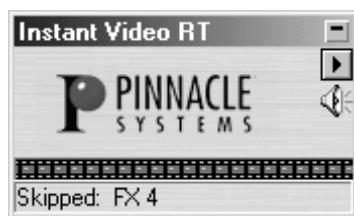
If the window is minimized, meaning it shows only its title bar, then please click once on the minimize / maximize button at the right of the window to enlarge it. Minimizing the Instant Video RT window makes it use less screen space, but you should only do it if you do not need the “dropped frames” and “film strip” indicators.

#### Status display

At the bottom of the Instant Video RT window is the status line. Normally it says “Ready” to indicate that everything is fine. When the window is active, meaning you have clicked on it and it’s title bar is blue, then the status display tells you that you can right click the window to open the options menu—you can read more about the options menu below.

#### Dropped frames

The other possible output in the status line is the “Dropped frames” message. This means that some video stuttering has occurred on the output, either during the current playback if playback is just running, or during the previous playback if playback is currently stopped.



Such “dropped frames” are not a problem when you finally output your project to DV tape, or to MPEG-2 file, or to any other type of file. In these cases you can simply ignore the dropped frames message, as these do only happen during the preview of your project.

The “Dropped frames” indicator becomes important if you want to output your project onto an analog tape, for example a VHS tape, using the analog outputs on the blue box. In this case dropped frames during playback should be kept to a minimum because they can spoil the recording on your tape.

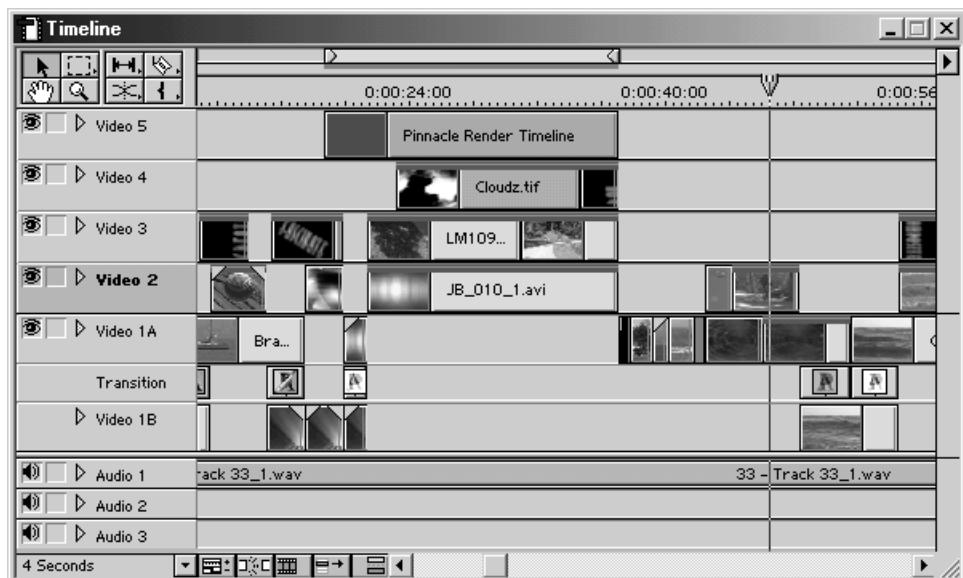
When playing back your project, try to determine if dropped frames only occur in a certain area of your project. If you are using a combination of effects which exceed the real time capabilities of the Pinnacle **Pro-ONE** then, you should render the affected area.

This can be achieved using the *Pinnacle Render Timeline* object. First, make sure that there is an empty video track above your project—if this is not the case, then add one via the *Timeline* menu and *Add Video Track*.

Now select the *File* menu, then *New* and then *Pinnacle Render Timeline*. This creates a *Pinnacle Render Timeline* object in the *Project* window. Now drag this object down to the timeline, placing it in the topmost video track above the area that drops frames. Adjust the length by dragging the edges.

You will now see a thin red line near the top of the *Timeline* window. This indicates that the area below requires rendering, so adjust your workspace (the yellow bar) accordingly and the press <Enter> to start rendering.

After the rendering process, this part of the project will play without dropped frames.



If other parts of the project show dropped frames, then other instances of *Pinnacle Render Timeline* can be placed there.

### The film strip



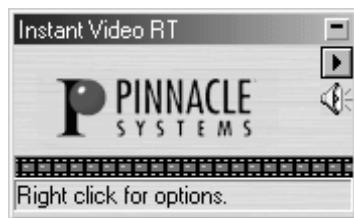
Whenever you set up something in the timeline that cannot be played in real time by **Pro-ONE**, Premiere marks the non-real time section of the timeline by showing a thin horizontal red line above it.

Many effects and effect combinations can be done in real time, but there are also some cases when real time is not possible. Such parts of the timeline need to be rendered before they can be played back. Please read the chapter “Pinnacle **Pro-ONE** & Real Time” on page 89 for details.

The film strip shows you at a glance if there are any segments in the timeline that cannot be played in real time and have not been rendered yet.

This is helpful because the timeline window usually shows only a small part of the whole project, and it would require some timeline scrolling to find out if there is anything marked red somewhere within the project if there was not the film strip.

**Film strip green** If the film strip is fully green, then the whole timeline is real time playable, meaning you can play it and view the result on a video monitor without the need to render the sequence.



**Film strip red** If the strip is fully red, then there are one or more red-marked segments on the timeline. If you play the timeline now, these segments will play with an "x" at the top left to indicate that you do not yet see all the effects you have applied. In order to see the whole project as you have edited it, you need to make Premiere render all the red-marked segments. This can be done by clicking the timeline window, making sure that the work area (the yellow bar) spans the whole project, and pressing <Enter>. Premiere will now initiate the rendering process, using Instant Video RT hardware acceleration. After the rendering process, the filmstrip will turn green.



**Film strip green in the middle** If the film strip is green in the middle, but red at its left and right end, then there are one or more red-marked segments in the timeline—but the *work area* is fully real time playable. In many cases you may want to play only the work area, so that you can ignore any red-marked segments outside of it.



# THE INSTANT VIDEO RT OPTIONS MENU

You can open a menu with commands by clicking the arrow symbol at the top right of the Instant Video RT window, or by clicking the window with the right mouse button. The following items are available:



## Audio scrubbing

If Audio scrubbing is enabled, as shown by a checkmark next to it, then you hear audio “blips” when scrubbing the timeline. If you disable it, scrubbing will be silent, but you will still get audio on playback.

## Settings

This menu item opens the *Playback Settings Pinnacle Pro-ONE* dialog box with the *Output* and *General* tab. Its main function is to allow you to switch the output between analog and DV.



We recommend that you switch to the DV output mode only after you finished editing your project and want to output it to DV tape, and switch back to the analog output mode after doing that.

Please see Chapter “**Pro-ONE** Control” as of page 170 for details about the other settings in this dialog.

## Help

Shows you the text that you read right now as electronic online help.

## About

Shows an about box which - among other things - shows the hardware serial number of your Pinnacle **Pro-ONE**.

## **List to render**

This displays some of the internals of Instant Video RT, showing why certain segments cannot be played in real time. There is no need to worry about this list, but it may help to clean things up when you think an effect should be real time playable, but it is not. To use this list, first set the Premiere timeline count to “Frames/Samples” (*Window, Windows Options, Timeline Window Options ..., Count*). Position the cursor to a segment that is marked to require rendering and note the frame count for this position in the monitor window. Now open the List to render and locate this position. The explanatory text may help you to determine why rendering is required at this position.

## **Minimize / Restore**

Minimizes or restores the size of the Instant Video RT dialog box.



# Chapter 18:

## Editing Widescreen Projects

A standard TV image has a 4:3 aspect ratio, meaning the ratio of its width and height is 4:3. And this is also the standard aspect ratio of DV video footage and of the video projects you edit with **Pro-ONE**.

In addition to this standard ratio, **Pro-ONE** also fully supports “wide screen” projects with a 16:9 aspect ratio.



*Aspect ratio 4:3*



*Aspect ratio 16:9*

This chapter describes step by step how to film, capture, edit, and output using the 16:9 wide screen format.

### SHOOTING 16:9 WIDE SCREEN FOOTAGE

You need a DV camcorder that supports filming at 16:9 aspect ratio. And you must enable the 16:9 mode before you do the filming. This is usually being done using the Camcorder’s on-screen menu, please see the manual for details. The 16:9 mode may be called “16:9”, “wide screen”, or “Cinema”.

**Hint:** If your camcorder supports several wide screen modes, make sure to select 16:9 and not 14:9 or a different ratio, and make sure to select “squeeze” and not “letterbox”.

Once you did this setting, simply film your footage as usual.

## CAPTURING 16:9 WIDE SCREEN FOOTAGE

This is very simple, there is nothing special to be done to capture 16:9 footage off a DV tape. You may use the Pinnacle DVTools or the Premiere capture tool, just make sure that you use the digital 1394 connection to capture your clips. See Chapter 8 “Working with DVTools” as of page 49 for details about capturing video clips off a DV tape.

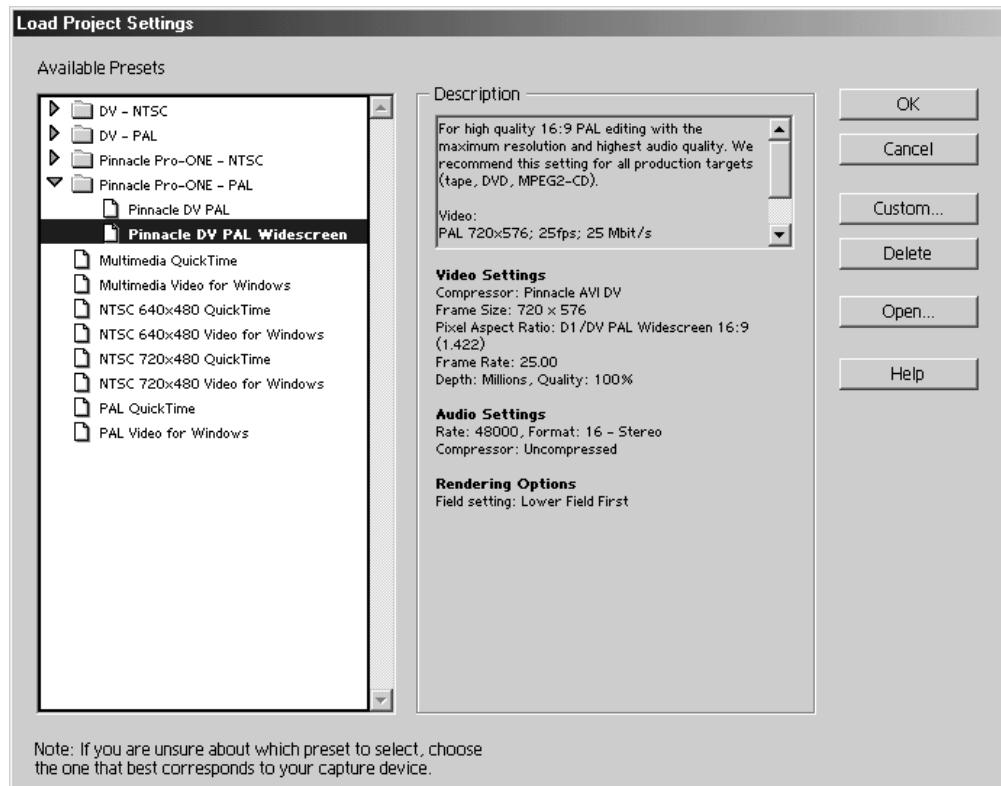
The capture preview window might show a distorted 4:3 image during capturing, this is not a problem because it does not affect the format of the captured clips.



**Hint:** You should capture 16:9 footage into a different directory than 4:3 footage. This makes sure that you do not mix up the different formats. Mixing clips of both formats within one project will result in distorted images.

## EDITING A 16:9 WIDE SCREEN PROJECT IN PREMIERE

1. Open a new project and make sure to select the *Pinnacle DV Widescreen* project preset for this, either the PAL or NTSC preset according to the video standard of your footage.



The Premiere program monitor window will now automatically be a 16:9 wide screen window.

- Import the captured wide screen clips, and do the video editing as usual, see Chapter 7 “A Short Tour” as of page 34 for a quick guide to video editing with **Pro-ONE** and Adobe Premiere.



Several wide screen adjustments will be done automatically, for example the TitleDeko RT window and the Pinnacle effect settings windows will display the proper format, effects like “Pinnacle Iris Round” will adapt to create proper circles, and the TitleDeko RT text rendering will be adjusted.

But not all of the effects that are available in Premiere will adapt properly to the wide screen format. If you find effects that do not seem to look right in wide screen projects, you may have to replace them with other effects.

**Note:** Some windows, like the Premiere source monitor, will still be at 4:3 aspect ratio and will therefore show distorted images. This is nothing to worry about.

Assuming you have connected a TV set or video monitor to the blackBOX for previewing your video full screen while you edit with Premiere:

The image on this monitor will initially be 4:3. You have to set the monitor to wide screen mode, making it show black bars at the top and bottom, to see the proper 16:9 aspect ratio. Please refer to the monitor’s or TV set’s manual for details.

If the monitor or TV set does not support this wide screen mode, then it will always show distorted images when you edit wide screen projects.

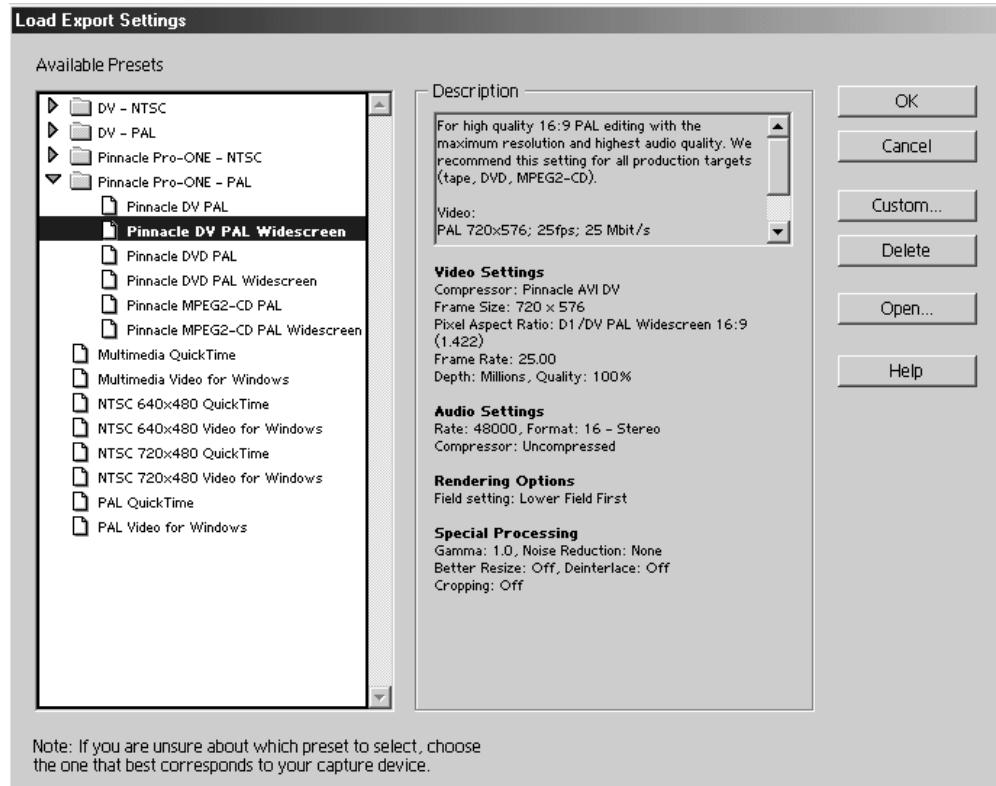
## OUTPUTTING A 16:9 WIDE SCREEN PROJECT TO TAPE

Whenever you output a Premiere wide screen project to DV tape, it will become wide screen footage on the DV tape automatically. So the only thing you have to do is to put your project to DV tape as described in Chapter “Exporting your Projects” as of page 151.

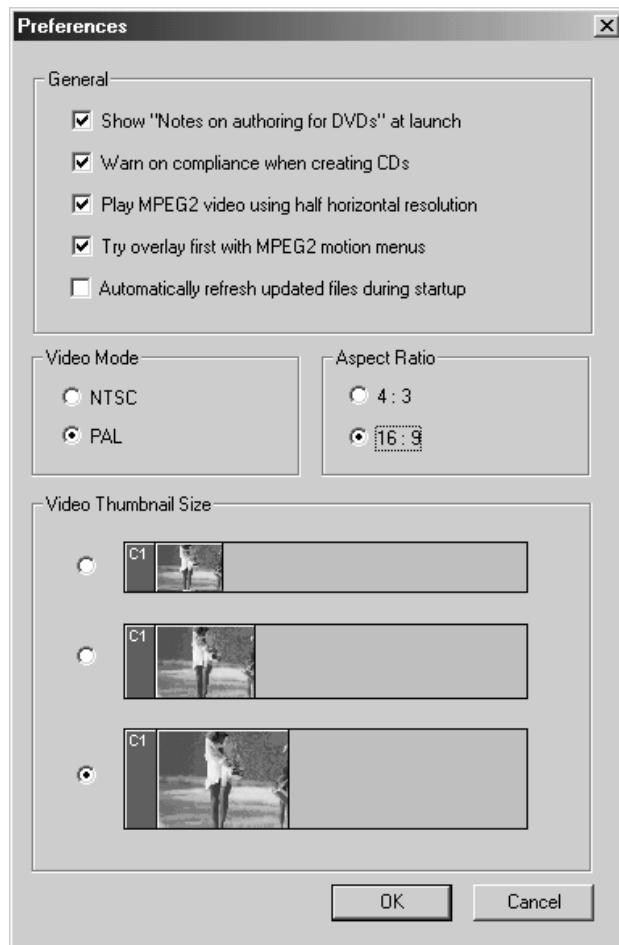
To output your project onto a VHS tape or other analog tape, you can connect your analog video recorder to the analog outputs of your DV device. The DV device will then automatically generate a wide screen output signal with black bars at the top and bottom. When you later play this tape on a video monitor or TV set, then you have to set this device to 16:9 mode manually.

## OUTPUTTING A 16:9 WIDE SCREEN PROJECT AS MPEG-2 FILE FOR CD OR DVD

Use the Premiere “Export Timeline” (*File, Export Timeline, Movie*) function to export your project as MPEG-2 data for use on an MPEG-2 CD or DVD. For export settings, use the proper Pinnacle wide screen export preset. The details of this are described in Chapter 14 “Exporting your Projects” as of page 151 in this manual.



After doing this export, you need to use the Pinnacle Impression DVD SE application to generate the CD or DVD. Within that application, you must set the 16:9 mode by selecting the *Edit* menu and the *Preferences* command. In the Preferences dialog box choose *16:9* as *Aspect Ratio*.



Enjoy doing widescreen projects **Pro-ONE!**

## NOTES

# Appendix

The Appendix contains the technical data, a detailed troubleshooting, a multimedia glossary, and the index.



**Technical Data**



**Troubleshooting**



**Pinnacle Effects Keyboard Shortcuts**



**Multimedia Terminology**



**Licence Agreement**



**Declaration of Conformity**



**FCC Compliance Statement**



**Index**





# Appendix A: Technical Data

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## Hardware

32-bit PCI busmaster expansion card  
blackBOX for analog and digital input / output connections  
6-pin to 4-pin DV cable  
audio adapter cable for monitoring

## Video Connectors

### **Input:**

2 x 6-pin DV 1394 jack, 1x 6-pin internal DV 1394 jack  
for connection with any DV, miniDV, DVCAM devices  
1 x composite video (CVBS), cinch jack, high-quality PAL comb filter  
1 x S-Video (Y/C), mini-DIN jack  
for connection with any S-VHS, Hi-8, VHS, Video8, Betacam etc. devices

### **Output:**

2 x 6-pin DV 1394 jack, 1x 6-pin internal DV 1394 jack  
for connection with any DV, miniDV, DVCAM devices  
1 x composite video (CVBS), cinch jack  
1 x S-Video (Y/C), mini-DIN jack  
for connection with any S-VHS, Hi-8, VHS, Video8, Betacam etc. devices

## Video Standards

PAL, NTSC, SECAM (input only)

## Video Formats

Resolution: 720 x 576 (PAL), 720 x 480 (NTSC)  
Frame rate: 25 fps (PAL), 29.97 fps (NTSC), interlaced  
Chroma sampling: True Color YUV 4:2:0 (PAL), 4:1:1 (NTSC)  
according to DV and ITU.R 601 standards

## Audio Connectors

Input: Stereo, 2 x cinch jack, -50dB to +12dB  
Output: Stereo, 2 x cinch jack, -62dB to 0dB  
Monitoring: Stereo output to connect with sound board

## **Audio Formats**

48 kHz 16bit stereo  
44.1 kHz 16bit stereo  
32 kHz 16bit or 12bit stereo

## **Compression**

Native DV 25 compression format  
Data rate 25 Mbit/sec  
Supports OpenDML format for unlimited video file duration

## **Real Time Effects**

2D / 3D real time effects unit  
2 Video streams plus bitmaps  
Overall data rate >50 Mbit/s  
Professional edge smoothing  
Multi-layer effects combinations

## **Instant Video RT**

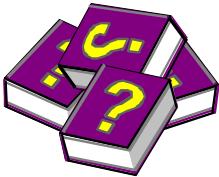
Intelligent, hardware accelerated rendering  
Seamless, lip-synched multi file playback

## **Video Overlay**

Video overlay hardware for real-time monitoring on computer screen  
Supports High Color / True Color VGA  
Scaleable Video window

## **MPEG2 Export**

For DVD and MPEG2-CD production  
Constant (CBR) or variable (VBR) bit rate control  
MPEG2 ML@MP 4:2:0 format  
Direct interface to Pinnacle Impression authoring application



# Appendix B: Troubleshooting

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## GENERAL

Before you begin troubleshooting make sure of the following:

- ♦ Ensure that all other installed hardware is functioning normally with the latest drivers, and is not flagged in the Device Manager. If any devices are flagged you should resolve these issues before starting installation.
- ♦ Have you installed Pinnacle **Pro-ONE** into a PCI Rev 2.1 compliant computer?

## GENERAL PROBLEMS



**Capture and/or playback do not work correctly. Frames are dropped or an error message appears that says the disk is full when it is not.**

This can sometimes be caused by a problem with interrupt (“IRQ”) sharing, a method where two or more PCI boards share one hardware interrupt line.

Pinnacle **Pro-ONE** supports IRQ sharing. However, if the other device that **Pro-ONE** is supposed to share its IRQ with does not support sharing, then **Pro-ONE** E will not function. This section explains how to solve problems around IRQ sharing. Interrupts (“IRQs”) are signals that inform the **Pro-ONE** E software about a request for service from the **Pro-ONE** board. There are only a limited number of IRQ lines available in a PC and if many peripherals or add-in boards are present, these lines may not be sufficient. The PC will then start sharing IRQ lines among PCI boards.

Problems with interrupt sharing can show themselves in a number of ways:

- ♦ Dropped frames during capture from DV and/or analog inputs.
- ♦ Dropped frames during playback of video with or without effects in the Premiere timeline.
- ♦ Very slow scrubbing or “hangs” while scrubbing or playing back.
- ♦ Dropped frames or scrambled video when recording back to DV tape.

If you suspect IRQ sharing to be the cause of problems you are having, please open the *Start Menu* and select *Settings*, *Control Panel* and *System*. In the window that opens, click on the tab labeled *Device Manager*, then double-click on the icon named *Computer*. Now select *Interrupt (IRQ)* button.

**Pro-ONE** IRQ allocation will show in the list four times with the following names:

- ♦ Pinnacle Pro-ONE-1394
- ♦ Pinnacle Pro-ONE E4 (3D Renderer)
- ♦ Pinnacle Pro-ONE Overlay
- ♦ Pinnacle Pro-ONE Display.

Note that all four entries have the same IRQ number. Now check to see if this number is also being used by another device—if this is the case, then Pinnacle **Pro-ONE** is sharing its IRQ with this device.

Getting rid of IRQ sharing is not always easy, but here are some possible solutions:

- Install the latest drivers for the other device.
- Remove the other device from the system if you do not absolutely require it.
- Enter the mainboard BIOS setup program during boot up - this is usually done by pressing **<Del>** right after powering up the PC. Some setup programs allow you to swap IRQ allocation between the PCI bus and the ISA bus. Make sure that IRQs are set to *Reserved for ISA* only if this is necessary (i.e. there is an ISA board that requires this IRQ).
- IRQs usually get assigned depending on the slot number that PCI boards occupy. Moving or swapping the **Pro-ONE** board with other PCI boards sometimes resolves IRQ sharing problems.



### **The Instant Video RT window is not visible in Premiere.**

There are several possible causes for this:

The Instant Video RT window is covered by other windows. Collapse all other Premiere windows to find it again.

You did not select a Pinnacle **Pro-ONE** preset when starting Premiere. In the Project menu select *Project Settings* and *General...* and then click on the *Load* button to load a Pinnacle preset.

The Premiere preferences file may be corrupted. Hold down **<SHIFT>** and **<CTRL>** while starting Premiere to delete it.

The Pinnacle **Pro-ONE** hard- or software may not be installed correctly. See chapter “Installing the Hardware” (p. 8) and/or “Installing the Software” (p. 19) for details.

# PROBLEMS WITH DVTOOLS



## Problems with having Premiere & DVTools open simultaneously.

You may experience intermittent operation or output using Instant Video RT in Premiere while DVTools is still open. Be sure to close DVTools when working in Premiere, or close Premiere while working with DVTools. You may also experience 1394 errors, or blue screen errors with both applications open. Both of these applications are making calls to the 1394 system, they cannot simultaneously access it correctly, therefore errors or unwanted symptoms may occur. If you do operate with both applications open, and receive errors you will have to restart your system to recover.



## DVTools: Problems with tape scanning.

*If several programs are working simultaneously, the performance may suffer.*



Please check if other applications are active in your system.  
Please close all programs and only use the DVTools during scanning.



## DVTools: The error message “Time code not found” appears.

*Cause 1: The tape has not yet been used for recording video and has not had time code recorded to it.*



*Cause 2: Time codes may be lost in case of damaged tapes.*



Please test if this problem also occurs with other tapes. Always use the kind of tape the manufacturer of your DV device recommends.



## DVTools: The scan process is repeated continuously.

*Cause 1: There are drop outs on the DV tape. This may be due to damaged tapes or on some tape sections you did not record video.*



Solution 1a: Please test if this problem occurs with every tape. Always use the kind of tape the manufacturer of your DV device recommends.

Solution 1b: In DVTools you can define a timeout for blank tape sections. This avoids that scanning will be repeated as soon as a blank spot occurs on the tape.



*Cause 2: There are no date and time entries on the DV tape.*

Solution 2: Please check the date and time setting of your DV device. To do so, consult the manual that was supplied with your DV device.



### DVTools: Device control fails during tape scan or batch capture.

DV Tools uses time code information that is stored on your DV tapes. Please activate this time code function (TC) for your DV device. Make sure that the clock of your device is set and functioning.

We recommend stripping the DV tapes before shooting real footage. You can "pre-format" the tape putting the camera into recording mode until the tape is full. Leave the lens covered. The tape will then contain continuous time code information and will work properly.



### The system does not boot. The mouse movement is jerky.

DV devices may cause trouble during the initial driver start. Please disconnect these from Pinnacle **Pro-ONE** until after the boot process is complete. After Windows has booted you can connect the camcorder again. The camera will work fine.

## PROBLEMS WITH THE VIDEO DISPLAY ON THE PC SCREEN



### In the Pinnacle **Pro-ONE** settings dialog, I can switch between Overlay Surface and Primary Surface. What is the difference?

*Different graphics adapters support different modes of displaying video. Choosing between Primary and Overlay Surface allows you to select a mode that works best for your particular graphics device.*

In general, Primary Surface will work with more graphics adapters than Overlay Surface. However, Primary Surface has a number of restrictions:

- Primary Surface requires that the graphics board is set to 16, 24 or 32 bits per pixel color depth (high color or true color). It does not work with a setting of 8 bits per pixel (256 colors).
- Covering the video display with another window may sometimes result in stray pixels and should be avoided.
- On some systems, Primary Surface may require slightly more system resources than Overlay Surface.



### I cannot select Overlay Surface, only Primary Surface or None.

*This is because your graphics adapter does not support Overlay Surface. If Primary Surface works, then this is not a disadvantage.*

If you absolutely want to get Overlay Surface to work, you can try obtaining a new driver from the manufacturer of your graphics adapter.



### **I do not see any video on the PC screen, just a grey rectangle.**

Try switching to Primary surface. If this does not help, check the color mode of your graphics adapter—it has to be set to 16, 24 or 32 bits per pixel (true color or high color). In some cases, switching to different resolutions and monitor refresh rates can help.



### **There is a video display on the PC screen, but it gets lost occasionally and I only see a gray rectangle.**



This can be fixed by moving the window that contains the video image. Sometimes, switching the overlay mode between Primary and Overlay Surface also helps.



### **The video display on the PC screen shows flashing lines.**



*Your graphics adapter or PCI bus may have problems transferring all the data required for the video display.*



Try switching to Overlay Surface or set your graphics board from 32 or 24 bits per pixel (true color) to 16 bits per pixel (high color).



### **When a window or menu is on top the video on my PC screen, I cannot see it, because the video covers it.**



Try switching to Overlay Surface, if it is available. If not, then the only solution is to avoid placing other windows on top of the video display.



### **The video on my PC screen looks different from the video on my external monitor. The brightness and/or colors do not match.**



*This is quite normal, as the graphics adapter influences the displayed video. In addition, PC monitors use a different phosphorus coating that makes colors look different. For a preview that best reflects the video you are working on, connect a video monitor or TV set to the analog outputs of your Pinnacle **Pro-ONE**.*

## **PROBLEMS WITH CAPTURE**



### **Stop motion and still frame capture do not work.**

The Pinnacle **Pro-ONE** hardware does not support these capture modes. To generate a still frame from a captured video clip, the Premiere export features can be used. For this, place the clip in the timeline and move the cursor to the frame that you want to export. Now select *Export - Frame* in the *File* menu.

It is also possible to use DVTools to capture a single frame from an analog or DV video source.



### When I capture, I always drop frames.

First, make sure that you capture onto a separate hard disk reserved solely for video. This drive needs to be set in *File, Preferences, Scratch Disks / Device Control*.

If this does not help, your hard disk may be too slow. You can use the DVExpert tool in the Pinnacle program group to check the speed of your hard disk.

Finally, if an analog video source has unstable sync signals, some frames may be dropped, especially at scene changes. Cleaning the heads of your camcorder or VCR or using a timebase corrector may remedy this.



### I am trying to capture a very long clip, but capture stops after about twenty minutes.



Windows 98 SE / Me uses the FAT32 file system and this limits the maximum size of a file to 4 GBytes. With a data rate of 25 Mbit/sec, this amounts to about twenty minutes. Capture will automatically stop after this time.

## PROBLEMS WITH EDITING AND RENDERING



### Some of the effects icons are black or Premiere is unstable or behaves in strange ways. It takes very long to start Premiere.



*The Premiere preferences file may be corrupted.*



You can delete the preferences file by holding down the <SHIFT> and <CTRL> keys while starting Premiere. Note that this will erase user settings such as window positions.



### There is an annoying black vertical line on both sides of the video. On the video monitor connected to the Pinnacle **Pro-ONE** video output, this is not visible. But I do see it with some effects like slides and picture-in-picture.



Many video sources (analog and DV camcorders) do not output the full ITU.R-601 resolution of 720 horizontal pixels. Instead, they produce black bars on both sides of the video.

Pinnacle **Pro-ONE** will automatically remove these black edges off if *Cropping* is turned on. In Adobe Premiere, select *Project - Project Settings - General...* and click on the button *Playback Settings*. Make sure that the checkbox *Enable Cropping* is activated.



**I put some effects in the timeline, but they do not play back. I just see black or video with a small “x” in the upper left corner.**



*Pinnacle **Pro-ONE** supports transitions, titles, transparencies and filters in real time, but there are limits to these capabilities.*

*First of all, only Pinnacle transitions and filters can be played in real time. Secondly, not all combinations of Pinnacle effects work in real time.*

*Anything that does not work in real time needs to be rendered. This is a process where a new clip is calculated that contains the effect.*



Please see chapter “Pinnacle **Pro-ONE** & Real Time” as of page 89 for details.



**The film strip in the Instant Video RT window is red, but I cannot find the area that needs to be rendered.**



Try one of the following solutions:

- ♦ Span the work area over the entire project and start rendering.
- ♦ Right-click on the Instant Video window and select *List to render*. A window will open that indicates the error condition and the frame count where it occurred. By now selecting *Frames/Samples* display in the *Timeline Window Options*, you can localize the place of the timeline where rendering is required.
- ♦ If you know what area you worked on before the film strip turned red, then just set the work area to this spot and render.



**I have rendered the entire project, but the film strip in the Instant Video window is still red.**



*In rare cases, it is possible that the internal database management of Adobe Premiere and Pinnacle **Pro-ONE** lose synchronization.*



If you see effects where they do not belong or if Instant Video reports that everything has been rendered, but this is not the case, try the following: move the mouse cursor above the scrub bar while holding down *<Shift>*, *<Ctrl>* and *<Alt>* and click left once when the pointer turns into a trash can icon. This will delete all rendered effects and resynchronize the lists.



**Scrubbing is slow and the screen takes a long time to update.**



*Scrubbing may be slow if you choose to display all thumbnails in the Track Format settings of the Timeline Window Options, as updating them takes a lot of time. The option Show Audio Waveforms also causes scrubbing performance to degrade.*



**The Alpha Magic FX wipes I select in the Pinnacle Gradient Wipe transition do not play back in real time.**



You must use Alpha Magic FX images that match the video standard of the clips you are editing: PAL or NTSC.



### **Can I import PhotoShop files ?**

Yes. When you import PhotoShop files (PSD) Premiere let you select between the layers that you want to see in the video. To playback the PhotoShop file in real time from the timeline please choose “Merged layers”. If you only want to display a single layer make sure that the whole image gets rendered. Without rendering other layers might get visible too. You can force the rendering by using Pinnacle Render Timeline as described in chapter “Pinnacle **Pro-ONE** & Real Time” as of page 89.

Tip: save those layers you want to use into separate files.



**I have a number of favorite Alpha Magic FX images that I use all the time. But I always forget in which directories they are.**



Solution 1: Save the effect as a preset.

Solution 2: The Alpha Magic FX images can be copied or moved using the Windows Explorer. You can create your own Favorites directory and copy Alpha Magic images into it.



### **Is it possible to do my own Alpha Magic FX effects?**



Yes, certainly. The Pinnacle Gradient Wipe effect will accept bitmaps in PNG or BMP format. However, the effect will only play in real-time if the image has a frame size that matches the current project settings and if its color depth is 8 bits per pixel.



**I want to use AVI clips from other sources than Pinnacle **Pro-ONE** capture. Can I do this?**



*Pinnacle **Pro-ONE** supports standard Microsoft “Type 2” DV AVI files - this is the most widely used format for DV video. However, some manufacturers choose nonstandard formats and these are not compatible with Pinnacle **Pro-ONE**.*

## PROBLEMS WITH PLAYBACK AND OUTPUT



**Problems while uploading video to the DV tape (recording the edited video back to the DV tape).**



*Cause 1: Only a few PAL camcorders currently support recording back to the device from the DV port. On most PAL camcorders it is not possible to upload digital video.*



**Solution 1:** Check the DV connector of your camcorder—if it says “DV out”, then the device is output only. If the connector is labeled “DV in/out”, then recording via 1394 should be possible.



*Cause 2: If your computer system is too slow, the system might abort the upload or the video quality may be very poor.*



**Solution 2:** Please make sure that your PC meets the minimum system requirements for Pinnacle **Pro-ONE**. Use the DVExpert to check if your hard disks are fast enough.



*Cause 3: Some high-bandwidth USB devices may interfere with 1394 transfers.*



**Solution 3:** Disconnect all USB except for mouse and keyboard when recording back to DV tape.



**There are dropped frames when I play my project to the analog output. This happens in areas of the project where there are lots of titles or still images.**



*Titles and still images are uncompressed data. If you have many titles and/or stills that follow each other rapidly, then Pinnacle **Pro-ONE** may not be able to read them quickly enough from your hard disk.*



**Make sure that titles or stills are spaced at least one second apart. If this is not possible, try rendering the portion of your project where frames are dropped by using Pinnacle Render Timeline. Please see chapter “Pinnacle **Pro-ONE** & Real Time” as of page 89 for details.**



**There are dropped frames when I play my project to the analog output. This happens in areas of the project there are lots of Pinnacle effects.**



*Some systems may not be fast enough to handle the load of certain Pinnacle effects combinations. If this happens, first try optimizing your system.*



**There are several possible system optimizations:**

Check the speed of your hard disk with DVExpert and defragment it if necessary. Make sure that DMA is enabled for your hard disks.

Pinnacle **Pro-ONE** stores titles and still images in a cache - this is a special directory on your hard disk. In order for this to work, you must set the scratch disk in Premiere correctly. Select *Edit - Preferences - Scratch Disks and Device Control*. Set a path to your video disk for *Video Previews* and *Audio Previews*. A directory called *Pinnacle* will be created here and used for caching titles and still images.

If your system is still too slow, use Pinnacle Render Timeline to render the area where frames are dropped. Please see chapter “Pinnacle **Pro-ONE** & Real Time” as of page 89 for details.



**There is no audio when I play a project from the timeline or a clip from the source monitor.**



*All audio is output through the Pinnacle **Pro-ONE** hardware, even during scrub operations. Please make sure to connect the audio loopthrough cable to the input of your sound board as described in chapter “Connecting the Video Devices” as of page 11.*



The level of the **Pro-ONE** analog audio outputs may be set by right-clicking on the Instant Video RT window, choosing *Settings* and then the *Output* tab. The sliders here set the maximum output level. Audio can then be attenuated or muted by clicking on the speaker button in the Adobe Premiere monitor window.



**I am using the Pinnacle filters Page Curl/Peel, Picture-in-picture or Motion. If I place them on a clip, the clip in the background is no longer visible.**



*For the Pinnacle filters to be transparent, you must set the transparency to Alpha Channel. Do not use Black Alpha Matte or White Alpha Matte.*



Select the clip that has a Pinnacle filter such as Picture-in-picture. Now click on *Transparency* in the Effect Controls palette and set *Alpha Channel* as the Key type.



**I rendered a segment with many Pinnacle filters (Picture-in-picture, Page Curl/Peel, Motion). The colors of some of the edges now look funny.**



*For the Pinnacle filters to be transparent, you must set the transparency to Alpha Channel. Do not use Black Alpha Matte or White Alpha Matte.*



Select the clip that has a Pinnacle filter such as Picture-in-picture. Now click on *Transparency* in the Effect Controls palette and set *Alpha Channel* as the Key type. Do this for all clips that have similar Pinnacle filters.



**The Premiere manual says that I can double- or triple-click on the play buttons in the monitor to play faster, but this does not work.**



*Fast and backward playback with a double-/triple- or <Alt>-click on the monitor play button will not work on Pinnacle Pro-ONE.*



Try these workarounds:

- To quickly scan through video on the timeline, click and hold the frame forward/reverse buttons in the Monitor window. By pressing and releasing <Shift> while you do this, you can switch from moving by single frames to moving in steps of five frames.
- To modify the playback speed of a clip in the timeline, right-click it and select Speed.



**I am using Print to Video in a Storyboard window. The playback is not seamless.**



*The Storyboard Print to Video feature of Premiere does not use the **Pro-ONE** hardware for playback and you will thus see a short pause between the clips.*



**I am ready to output my project to tape. What is the best way to do this?**



We recommend that you output your project to tape directly from the timeline, as this will allow you to see dropped frames, which are reported in the status line of the Instant Video window. Make sure that all non-real time effects have been rendered—this is indicated by a green film strip.



**There are always color bars on the video monitor connected to the **Pro-ONE** output.**



In Premiere, right-click on the Instant Video RT window and select *Settings* in the menu that pops up. Click on the tab labeled *Output* and check the box called *Test Picture*. Make sure that it is turned *off*.



### **I am using the Print to video command to output to tape, but some features do not seem to work.**



If you want to use the Premiere Print to video command, please note the following restrictions:

- ♦ There is no report on dropped frames during playback.
- ♦ The options “Zoom by two”, “Full screen”, “Color bars” and “Black” have no effect on the analog output, only on the display on the PC monitor.
- ♦ “Zoom by two” will not work if the overlay mode is set to primary surface.
- ♦ Make sure to render your entire project before starting Print to video. If you start Print to video while still having unrendered effects in your project, Premiere will render them - and also render all real-time effects that normally do not need to be rendered.
- ♦ Occasionally, the video on the PC screen will play back behind the Premiere window. You can bring it to the front by pressing **<Alt>-<Tab>**.
- ♦ You can abort a Print to video operation by pressing **<Esc>**.



### **I want to send my project to my DV device. Can I use device control to start recording automatically?**



Yes. Select *File, Export Timeline* and *Export to Tape* to do this.



### **Can I export just the audio of a project?**

Yes, please select *File - Export -Audio Timeline - Audio* to do this. Make sure that the file type is set to Windows Waveform.



### **How do I output a file format for the internet?**

Adobe Premiere supports output of your project in several formats suitable for the internet, for example Windows Media and RealVideo. Please see the Premiere manual for details.

## **PROBLEMS WITH THE COMPATIBILITY OF VIDEO DEVICES**

Visit us on our home page under <http://www.pinnaclesys.com> and have a look at the compatibility list.



# Appendix C: Pinnacle Effects—Keyboard Shortcuts

## General

<Shift> + <Q>	Prev. marker
<Shift> + <W>	Next marker
<Shift> + <A>	Prev. keyframe
<Shift> + <S>	Next keyframe
<Shift> + <1>	Prev. frame
<Shift> + <2>	Next frame
<Shift> + <C>	Copy keyframes
<Shift> + <X>	Cut keyframes
<Shift> + <V>	Paste keyframes
<Shift> + <Del>	Delete keyframes
<Shift> + <I>	Set in point
<Shift> + <O>	Set out point
Space	Play / stop

## Wheel

Cursor left	- 1
Cursor right	+ 1
Cursor down	- 1
Cursor up	+ 1
Minus	- 360
Plus	+ 360
Page down	- 10
Page up	+ 10

## Preview

<Ctrl> + Mouse	Moves into X direction
<Shift> + Mouse	Moves into Y direction

## Slider

Cursor left	- 1
Cursor right	+ 1
Cursor down	- 1
Cursor up	+ 1
Minus	- 1
Plus	+ 1
Page down	- 10
Page up	+ 10

## Edit

Cursor left	Moves cursor in the edit area
Cursor right	Moves cursor in the edit area
Cursor down	- 1
Cursor up	+ 1
Minus	Changes the directory
Plus	Will be ignored
Page down	- 10
Page up	+ 10
Enter	Will be ignored



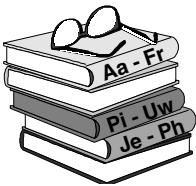
## Appendix D: Pinnacle DVTools—Keyboard Shortcuts

By using specific keys or shortcut keys on your keyboard you can execute the following commands:

Key or Shortcut key	Corresponding Button	Command
<Return>		<p>Explorer View Capture Gallery: Open selected database Playback Gallery: Open Clip Info window for selected file</p> <p>Storyboard View Open Clip Info window for selected clip</p>
<Del>		<p>Explorer View Capture Gallery: Delete selected database Playback Gallery: Delete selected file</p> <p>Storyboard View Delete selected clip</p>
<F5>		Tape Scan
<F6>		Capture scenes from capture gallery
<F7>		Print to tape
<Ctrl> + <Tab>		Toggle between Explorer view - Storyboard view and Preview window

The following keys or shortcut keys are available for the **Preview** window, the **Clip Info** window or the **Export to tape** dialog:

Key or Shortcut key	Corresponding Button	Command
Picture ↑		Previous clip info
Picture ↓		Next clip info
<Insert>		Preview window Add clip to Capture Gallery
		Clip Info window Apply trims
<Delete>		Clip Info window Restore original trims
←		Step back
→		Step forward
<F>		Fast forward / Play fast forward
<G>		Start Live capture
<I>		Set Clip In point
<J>		Playback in reverse
<K> or <Spacebar>		Pause
<L> or <Spacebar>		Play
<O>		Set Clip Out Point
<Q>		Seek In Point
<R>		Rewind / Play fast in reverse
<S>		Stop
<V>		Volume
<W>		Seek Out Point
<Ctrl + <G>		Recording DV extracts
<Ctrl> + <L>		Loop
<Ctrl> + <Shift> + <G>		Set Device to Record
<Shift + <G>		Snapshot
<Shift> + <J>		Play slowly in reverse
<Shift> + <L>		Slow playback
<Shift + <Tab>		Open timecode editing dialog



# Appendix E:

## Multimedia Terminology

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### GLOSSARY



Multimedia terminology contains computer and video terminology. The most important terms are defined in the following.

Cross references are marked with .

**Aliasing** An inaccurate display of an image due to the limitations of the output device. Aliasing appears for example in the form of jagged edges.

**Anti-aliasing** A method of smoothing out jagged edges in images.

**Aspect ratio** The ratio of width to height in an image or graphic. Keeping the aspect ratio means any change to one value is immediately reflected in the other.

**AVI** Abbreviation for Audio Video Interleaved, standard format for digital video ( Video for Windows).

**Batch Capture** This feature permits the user to specify which parts of a tape are to be digitized. The required clip is then controlled and digitized automatically by remote control of the camcorder / video recorder.

**Betacam** Broadcast quality 1/2 inch video cassette format developed by Sony. This system has continued to be developed over the years to offer models for the industrial and professional markets.

**BIOS** **Basic Input Output System.** Amongst others, settings in the BIOS setup must be performed for the function of a video board. In most cases, this setup may be activated directly by pressing the F1 key once the computer has been switched on.

**Bit** **Binary Digit.** The smallest information unit in a computer. A bit may be used to illustrate two conditions, “0“ and “1“, two bits thus  $2^2=4$  and three bits  $2^3=8$ , etc.

**Bitmap** An image format made up of a collection of dots or “pixels” arranged in rows.

**Blacking** The process of preparing a videotape for insert editing by recording video black and continuous control track on the entire tape. If the recording deck supports time code, then continuous time code will be recorded simultaneously.

**BMP** File extension for  bitmap files.

**Brightness** Also “luminance”. Indicates the brightness of a video.

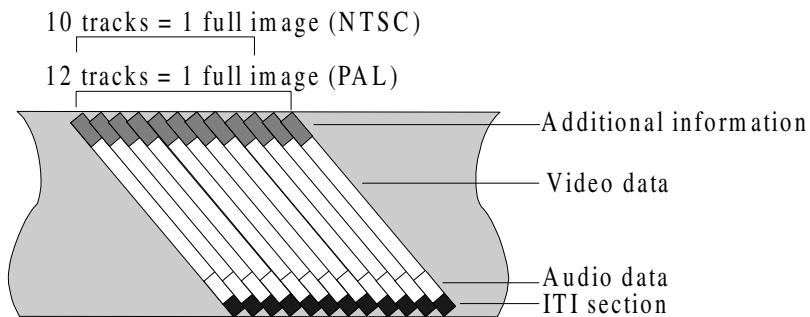
**Byte** One byte corresponds to eight  bit. With one byte, exactly one character can be displayed (i.e. letter, number).

<b>CD-ROM</b>	CD-ROMs are mass storage media for digital data, such as digital video.
<b>Channel</b>	Classifications of information in a data file to isolate a particular aspect of the entire file. For example, color images use different channels to classify the color components in the image. Stereo audio files use channels to identify the sounds intended for the left and right speakers. Video files use combinations of the channels used for image and audio files.
<b>Chrominance</b>	Color
<b>Chroma</b>	That quality of colors which embraces both hue and saturation. White, black, and grays have no chroma.
<b>Clip</b>	Any media type that goes on the Premiere Storyboard or Timeline. Can be video images, video scenes, images, or audio files.
<b>Clipboard</b>	A temporary storage area shared by all Windows programs used to hold data during cut, copy, and paste operations. Any new data you place onto the clipboard immediately replaces the existing data.
<b>Clock frequency</b>	Rate at which individual commands are processed in a processor. The higher the clock frequency, the quicker the commands are processed.
<b>Closed GOP</b>	 GOP
<b>CODEC</b>	Abbreviation for Compressor/Decompressor, compresses (packs) and decompresses (unpacks) image data. There are different compression methods (software CODECs and hardware CODECs).
<b>Color depth</b>	Number of bits delivering the color information for each pixel. In the black-and-white operation 1-bit color depth means $2^1=2$ colors, 8-bit color depth supply $2^8=256$ colors, 24-bit color depth $16,777,216 = 2^{24}$ colors.
<b>Color model</b>	A color model is a way to mathematically describe and define colors and the way they relate to each other. Each color models has a specific purpose; the two most common color models are RGB and YUV
<b>Color saturation</b>	Intensity of a color.
<b>Complementary Color</b>	Complementary colors are opposite in value to primary colors. If you were to combine a color with its compliment, the result would be white. For example, the complimentary colors of red, green, and blue are cyan, magenta, and yellow respectively.
<b>COM Port</b>	A serial port located on the back of your computer for attaching modem, plotter, printer, or mouse to a system.
<b>Composite video</b>	In composite video signals, luminance and chrominance signals are mixed. In comparison to S-Video or component signals, this results in reduced quality.   VHS and  Video8 are formats which record and playback composite video.  S-VHS

<b>Compression</b>	A method for making files smaller in size on disk. There are two types of compression: lossless and lossy. Files compressed with a lossless scheme can be restored to their original state with no change to their original data. Lossy schemes discard data during compression, so the file, when reopened is slightly different.
<b>Cropping</b>	Many video sources produce image interference, e.g. black stripes at the edge of the picture that cannot be seen on the television. This interference may be visible with video effects or when outputting e.g. on DVD. Cropping avoids these problems by cutting off the outer edge of the picture during digitalization.
<b>Cut</b>	A cut is the pan from one camera angle to another.
<b>Data rate</b>	Data per second, i.e. amount of data which a mass storage medium (hard disk or CD-ROM) saves/plays back per second or the amount of data of a video sequence per second.
<b>Data transfer rate</b>	The measurement of the speed at which information passes between storage mediums, (ex. CD ROM or Hard Disk), and the display device.
<b>DCT</b>	Abbreviation for Discrete Cosine Transformation. Part of the most image data compression methods. The brightness and color information is saved as frequency coefficient.
<b>Decibel</b>	A unit of sound measurement that expresses the loudness of sound.
<b>Digital8</b>	Digital videotape format which records DV-coded audio and video data on Hi8 tapes. Digital8 camcorders/VCRs can play Hi8 and 8 mm cassettes.
<b>Digital video</b>	Digital video stores information bit by bit in a file (in contrast to analog storage media).
<b>DirectMedia</b>	System extension by Microsoft for multimedia application under Windows.
<b>DirectShow</b>	System extension by Microsoft for multimedia applications under Windows.
<b>DirectX</b>	<b>Direct</b> Extensions is a bundle of several system extensions developed by Microsoft for Windows (among others DirectDraw, Direct3D) to make video and game acceleration possible.
<b>Dissolve</b>	A transitional effect in which the video is faded from one scene to the next.
<b>DMA</b>	Abbreviation for <b>Direct Memory Access</b> . This permits large volumes of data, e.g. video data, to be transmitted especially quickly in a computer system.
<b>Driver</b>	A file containing information needed to operate peripherals. The capture driver operates the capture board, for example.
<b>DV</b>	Digital videotape format for recording digital audio and video on $\frac{1}{4}$ "-wide Metal Evaporated tape. Mini DV tapes hold up to 60 minutes of content, while standard DV tapes can hold up to 270 minutes of content.

**DV cassette** The DV cassette features 500 lines of resolution, component recording, signal-to-noise ratios (54 dB) better than Betacam, three times the chroma bandwidth of Hi8 and S-VHS (1.5 MHz, the same as Betacam), time code, 16-bit quality audio (or four tracks of 12-bit, 32 kHz), separate video and audio insert editing, and direct digital input and output based on IEEE-1394 for multiple video-stream transfers and editing with no generation loss.

**DV recording format** On DV tapes, the video and audio data, the additional information (index signals, time codes, etc.) and the ITI section (ITI = insert and track information) are written to the DV tape as follows.



*Recording format of a DV tape*

**Edit decision list (EDL)** A list of clips and effects in a particular order in which they will be recorded onto your output tape or AVI file.

**Fade To/From Black** A digital effect that fades up from black at the beginning of the clip or down to black at the end of the clip.

**Field** A frame of NTSC or PAL video consists of horizontal lines and is divided into two fields. All odd lines of a video frame are Field 1. All even-numbered lines are Field 2, recorded at different points in time.

**File format** The ways in which a computer stores images or information on a disk.

**Filters** Tools that alter data to produce special effects, e.g. changing contrast or color.

**FireWire** Apple Computer's trademarked name for the IEEE-1394 serial data protocol.

**Frame** A single image in a video or animation sequence. If using full NTSC or PAL resolution, one frame consists of two interlaced fields.

**Frame rate** Frame rate defines how many frames of a video sequence are played in one second. The frame rate for NTSC video is about 30 frames per second. The frame rate for PAL video is 25 frames per second.

**Frequency** A number of periodically recurring processes (i.e. sound signals, images, alternating voltage) per unit of time, normally per second (Hertz).

<b>GOP</b>	In  MPEG compression the data stream is divided into different sections first, the so called <b>GOPs</b> (Group of Pictures), each containing several frames. One GOP can contain three types of frames: <b>I-Frames</b> , <b>P-Frames</b> and <b>B-Frames</b> .
<b>GOP size</b>	The GOP size defines, how many I-, B-, or P-Frames (pictures) are included in one  GOP. Common GOP sizes are for example 9 or 12.
<b>Hardware CODEC</b>	Compression method which creates compressed digital video sequences. These video sequences use special additional hardware to be recorded/played back and usually offer a better speed than data compressed with software CODECs.
<b>Hi8</b>	Improved version of Video8 using S-Video recorded on Metal Particle or Metal Evaporated tape. Because of higher luminance resolution and wider bandwidth, the result is sharper pictures than Video8.
<b>HiColor</b>	For images, this normally means a 16-bit (5-6-5) data type that can contain up to 65,536 colors. TGA file formats support images of this type.
<b>Hue</b>	Differentiation of colors with terms like red, yellow, orange.
<b>Huffman-Coding</b>	Part of the image data compression procedure. Seldom occurring values receive a long code, while constantly-occurring values receive a short code.
<b>IDE</b>	Acronym for Integrated Device Electronics. An interface, e.g. for hard disks and CD drives.
<b>IEEE-1394</b>	IEEE-1394 – sometimes referred to as  FireWire® or i.LINK – is an international standard digital interface completed in 1995 by the IEEE. IEEE-1394 integrates entertainment, communication, and computing electronics into consumer multimedia. In general, IEEE-1394 is: <ul style="list-style-type: none"> <li>♦ A hardware and software standard for transporting data at 100, 200, or 400 megabits per second.</li> <li>♦ A digital interface allowing a seamless connection between computer and peripherals – there is no need to convert digital data into analog.</li> <li>♦ “Hot pluggable” – users can add or remove 1394 devices with the bus active.</li> </ul>
<b>Image</b>	In technical terminology, an image is a collection of dots (pixels) on the screen.  In this case, the term is used to describe digitized pictures, consisting of pixels, which can be shown on a computer display and manipulated by image enhancement software.
<b>Image compression</b>	Method to reduce the amount of data of digital image and video files.

<b>Insert cut</b>	In an insert cut, an individual clip is copied into a longer one.
<b>Interlaced</b>	Interlaced describes the refresh method which the PAL and other TV systems use: The PAL TV image consists of two image halves (fields) of 288 lines each. The NTSC TV image consists of two image halves of 240 lines each.
<b>Interleave</b>	An arrangement of audio and video to promote smoother playback and synchronization or compression. The standard AVI format equally spaces audio and video.
<b>I/O</b>	Abbreviation for Input/Output.
<b>Irrelevance</b>	Irrelevant (unimportant) image information can be eliminated during the image data compression, since the human eye does not realize that this information is missing.
<b>IRQ</b>	<b>Interrupt Request.</b> Interrupt in a running process of the computer. Interrupts can be requested both by the hardware (i.e. keyboard, mouse) and the software.
<b>ITI</b>	<b>Insert &amp; Track Information.</b> Information that is saved on the digital videotape by means of  insert cuts and tracks.
<b>JPEG</b>	Abbreviation for Joint Photographic Experts Group. Also refers to a standard for compressing digital frames based on Discrete Cosine Transformation.
<b>KByte</b>	One KByte (Kilobyte) corresponds to 1024  Byte. The “K” in this case stands for the number “1024”.
<b>Key color</b>	A color made transparent so that a background image can show through. Most commonly used when overlaying one video sequence on top of another, allowing the underlying video to display wherever the key color appears in the foreground video.
<b>Key frame rate</b>	A method to help in the compression of video files, which works by assigning certain frames as key frames whose video data is completely saved at the time of compression. The video data of any intervening frames between two key frames is then only partially saved. On decompression these partial frames reconstruct their data from the key frames (e.g. MPEG).
<b>Laser disk</b>	Medium which stores analog video. Information on laser disks can only be read, but not changed.
<b>Long shots</b>	Long shots later provide the viewer with an overview and establish the scene of the action. However, these scenes can also be used later to shorten longer scenes. When you cut from a close-up to a long shot, the viewer no longer sees the details and it is thus easier to make a chronological jump. Showing a spectator in a semi-long shot can also distract briefly from the actual action.

<b>LPT</b>	Parallel port
<b>Luminance</b>	Brightness
<b>M1V</b>	MPEG file that contains video data only. MPA, MPG
<b>MByte</b>	One MByte (Megabyte) corresponds to 1024 KBytes or also 1024 x 1024 bytes.
<b>Mark In / Mark Out</b>	If just a part of a video clip in a project is to be used, this part is identified by mark in and mark out times.
<b>Modulation</b>	A method for the transmission of electrical information.
<b>Motion-JPEG (M-JPEG)</b>	Format for JPEG-compressed video sequences.
<b>MPA</b>	MPEG file that contains audio data only. M1V, MPG
<b>MPEG</b>	Abbreviation for <b>Motion Pictures Experts Group</b> . Standard for the compression of moving images. Compared to M-JPEG, it offers 75-80% data reduction with the same visual quality.
<b>MPG</b>	MPEG file that contains both video and audio data. M1V, MPA
<b>MPV</b>	MPEG file that contains video data only. MPA, MPG
<b>Non-interlaced</b>	Image refresh method, where the complete image is generated without skipping lines. A non-interlaced image (like your computer monitor) flickers much less than an interlaced image (like your TV).
<b>NTSC</b>	Abbreviation for <b>National Television Standards Committee</b> ; also, a color TV standard created by this group in 1951 using 525 lines (including blanking) and 60 image fields per second. NTSC is used in North and Central America as well as other countries.
<b>OpenGL</b>	Abbreviation for <b>open graphics library</b> (= system open graphics library). Application interface for 3D graphics developed by Silicon Graphics that can be used under Windows.
<b>PAL</b>	Abbreviation for <b>Phase Alteration Line</b> . Color TV standard developed in Germany using 625 lines (including blanking) and 50 image fields per second. It is the predominant European TV standard.
<b>Parallel port</b>	By the parallel port data is transmitted via 8 data lines. This means that 8 bit (1 byte) can be transmitted at the same time. This kind of transmission is much faster than via a serial port, but it is very sensitive over long distances. Parallel ports of a PC are indicated with LPT and a number (i.e. LPT1).
<b>PCI bus</b>	<b>Peripheral Component Interconnect</b> . Local Bus concept by Intel: 32-bit bus, a PCI bus can transfer 132 MByte per second (max.) at a clock frequency of 33 MHz. (PCI slot)

<b>PCI slot</b>	There are two kinds of expansion slots on most PCs: PCI and AGP.
<b>Pixel</b>	Abbreviation for <i>picture element</i> . Pixels are the smallest elements of a monitor image.
<b>Port</b>	Electrical transfer point for the transport of audio, video or control data between two devices.  serial port, parallel port
<b>Prime colors</b>	The colors that are the basis of the RGB color model: red, green, and blue. By varying how these colors are blended on screen, it is possible to create any other color.
<b>QSIF</b>	<b>Quarter Standard Image Format.</b>  MPEG I format describing the resolution which is 176 x 144 under PAL and 176 x 120 under NTSC.  SIF
<b>Quantization</b>	Part of the image data compression. Relevant details are represented precisely, less relevant details for the human eye are represented with less precision.
<b>RAM</b>	<b>Random Access Memory.</b> A RAM component is a write-read component from which data can be read and to which data can be written. The memory of computers is equipped with RAM components. RAM components are volatile, that is their content will be deleted after the computer has been switched off.
<b>Redundance</b>	Redundant (superfluous) information can be eliminated during the image compression. During decompression the images can be restored completely.
<b>Registry</b>	A database in Windows in which configuration data is stored. Among other things, the registry contains: the Windows system settings, the configuration data for Windows compatible applications, and user-specific configuration data.
<b>Resolution</b>	The number of pixels within an image horizontally and vertically. The higher the resolution, the more details can be displayed.
<b>RGB</b>	Abbreviation for Red, Green and Blue, the basic colors of additive color mixing. RGB describes the method used in computer technology where image information is transferred by dividing it into the three basic colors.
<b>ROM</b>	Abbreviation for <b>Read Only Memory</b> . Memory chip that keeps its data without power supply after being programmed once.
<b>Run Length Encoding</b>	The RLE = <b>Run Length Encoding</b> method is part of many image data compression methods. Repeating values are not saved individually but encoded by a counter, which states how often the values occur in succession.
<b>Scaling</b>	Adaptation to the desired image size.

<b>SCSI</b>	Abbreviation for Small Computers System Interface. SCSI is used as hard disk interface for high-performance PCs because of its high data rate.
<b>SCSI-ID</b>	A number that identifies a SCSI device which is connected to a  SCSI host adapter.
<b>SCSI host adapter</b>	Normally, a SCSI host adapter is a supplement board which connects the computer (host) and the SCSI bus.
<b>SCSI terminator</b>	Electrical circuit at the end of a cable which prevents the reflection of electrical signals. Each SCSI bus (only) needs two terminators. The terminators have to be fixed at the outermost ends of the SCSI cables and not in the middle of a bus.
<b>SECAM</b>	Abbreviation for Sequential Couleur à Mémoire. Color television transmission system used in France and Eastern Europe developed on the basis of the PAL system operating with 625 lines and 50 image halves per second.
<b>Serial port</b>	By the parallel port data is transmitted via one data line. This means that during a transmission of 8  bit (1  byte) these bits have to be transmitted one after the other. Thus, this kind of transmission is much slower than via a  parallel port. Serial ports in a PC are indicated with COM and a number (i.e. COM2).
<b>SIF</b>	Standard Image Format.  MPEG I format describing the resolution which is 352 x 288 under PAL and 352 x 240 under NTSC. 
<b>Signal-to-noise ratio</b>	The ratio of noise to good signal (picture) information usually expressed in dB.
<b>Single frame</b>	A single frame is part of a series or sequence. When this series is watched with enough speed, a "moving picture" is be created.
<b>Software CODEC</b>	Compression method to compress digital video sequences which can be played back without special hardware. The quality of these sequences depends on the performance of the complete system.
<b>S-VHS</b>	Improved version of VHS using S-Video and Metal Particle tape to deliver higher luminance resolution, resulting in sharper pictures than VHS.
<b>S-Video</b>	With S-Video (Y/C) signals, the brightness (luminance or "Y") and the color (chrominance or "C") information are transferred separately using multiple wires, avoiding modulating and demodulating the video and the resulting loss of picture quality.
<b>Time Code</b>	The time code identifies the position of a frame in a video sequence with respect to a starting point, (usually, the beginning of the clip). Its usual form is Hours:Minutes:Seconds:Frames (e.g., 01:22:13:21). Unlike a tape counter (which can be "zeroed" or reset at any point in a tape), time code is an electronic signal written on a videotape, and is permanent once it is assigned.

<b>Transition</b>	Transitions divert the viewer's attention from the actual action, enabling filmmakers to make chronological jumps, for example, without the viewer being conscious of them.
<b>TrueColor</b>	An image that contains enough color to appear “true” to life. For an image, this normally means 24-bit color, providing up to 16.7 million colors.
<b>VCR</b>	Abbreviation for <b>Videocassette Recorder</b> .
<b>VHS</b>	Abbreviation for <b>Video Home System</b> . System commonly used for home VCRs to record and play back images and sound using a $1/2"$ tape. VHS systems use & composite signals consisting of brightness and color information.
<b>Video8</b>	Video system using a 8 mm tape. Video8 recorders generate composite signals.
<b>Video CD</b>	CD-ROM standard with  MPEG compressed videos.
<b>Video decoder</b>	Converts digital video information into analog signals.
<b>Video encoder</b>	Converts analog video signals into digital information.
<b>Video for Windows</b>	Video for Windows is a Microsoft Windows system extension which records, stores and plays back video sequences from hard disk (digital video).
<b>Video scan rate</b>	Frequency with which the video signal is scanned onto an image display. The higher the video scan rate the higher the image quality and the less noticeable the flicker.
<b>Wav</b>	File format for audio signals, generally also the file extension for audio files (*.wav).
<b>White balance</b>	In an electronic camera the amplifiers for the three color channels red, green, and blue are adapted to each other in a way that white image parts of a scene are played without color cast and thus all colors within the color area of the TV are played correctly.
<b>Y/C</b>	Y/C is a signal consisting of two components: Y = Brightness information, C = Color information.
<b>YUV</b>	Color model of a video signal where Y delivers the brightness information and U and V the color information.



# Appendix F: License Agreement

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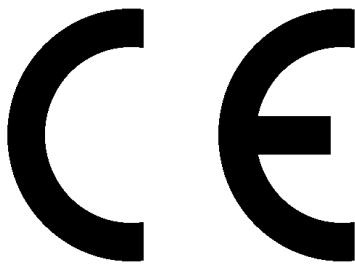
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## KONFORMITÄTSERKLÄRUNG

nach ISO/IEC Guide 22

## DECLARATION OF CONFORMITY

in accordance with ISO/IEC Guide 22

Anbieter / *Supplier* :

**Pinnacle Systems GmbH**

Anschrift / *Address* :

Pinnacle Systems GmbH  
Frankfurter Strasse 3c  
38122 Braunschweig  
Germany

Produkt / *Product* :

Pinnacle Pro-ONE RTDV

Das oben beschriebene Produkt ist konform mit:

*The product described above is in conformity with:*

Dokument-Nr. <i>Document No.</i>	Titel <i>Title</i>
EN 55022 : 1998 Class B	Grenzwerte und Messverfahren für Funkentstörungen von Einrichtungen der Informationstechnik <i>Limits and methods of measurement of radio interference characteristics of information technology equipment</i>
EN 55024 : 1999	Störfestigkeitseigenschaften für Einrichtungen der Informationstechnik - Grenzwerte und Prüfverfahren <i>Immunity characteristics for information technology equipment - limits and methods of measurement</i>
EN 61000-4-2 : 1995 + A1 : 1998	Störfestigkeit gegen Entladung statischer Elektrizität <i>Electrostatic discharge immunity test</i>
EN 61000-4-3 : 1996 + A1 : 1998	Störfestigkeit gegen hochfrequente elektromagnetische Felder <i>Radiated, radio-frequency, electromagnetic field immunity test</i>
EN 61000-4-4 : 1995	Störfestigkeit gegen schnelle transiente elektrische Störgrößen/BURST <i>Electrical fast transient/burst immunity test</i>
EN 61000-4-6 : 1996	Störfestigkeit gegen leitungsgeführte Störgrößen, induziert durch hochfrequente Felder <i>Immunity to conducted disturbances, induced by radio-frequency fields</i>
ENV 50204 : 1995	Störfestigkeit gegen hochfrequente elektromagnetische Felder von digitalen Funktelefonen <i>Radiated electromagnetic field from digital radio telephones - Immunity test</i>
EN 61000-3-2 : 1998 + A14 : 2000	Grenzwerte für Oberschwingungsströme <i>Limitations for harmonic currents</i>
EN 61000-3-3 : 1996	Grenzwerte für Spannungsschwankungen und Flicker <i>Limitations of voltage fluctuations and flicker</i>
EN 60950 : 2000	Sicherheit von Einrichtungen der Informationstechnik <i>Safety of information technology equipment</i>

Dieser Erklärung liegt zugrunde: Prüfbericht(e) des EMV-Prüflabors

*This certification is based on: Test report(s) generated by EMI-test laboratory*

Braunschweig, 19. Juni 2002 / June 19<sup>th</sup>, 2002

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Oliver Hellmold

Finanzdirektor / *Director Finance*  
(Rechtsverbindliche Unterschrift / *Legally Binding*)



## KONFORMITÄTSERKLÄRUNG

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## DECLARATION OF CONFORMITY

in accordance with ISO/IEC Guide 22

Anbieter / Supplier :

**Pinnacle Systems GmbH**

Anschrift / Address :

Pinnacle Systems GmbH  
Frankfurter Strasse 3c  
38122 Braunschweig  
Germany

Produkt / Product :

Pinnacle Pro-ONE

Das oben beschriebene Produkt ist konform mit:

*The product described above is in conformity with:*

Dokument-Nr. / Document No	Titel / Title	Ausgabe/-datum / Edition/Date of issue
EN 55022 : 1994 + Corrigendum : 1997 + A1 : 1995 + A2 : 1997 Class B	Grenzwerte und Messverfahren für Funkentstörungen von Einrichtungen der Informationstechnik <i>Limits and methods of measurement of radio interference characteristics of information technology equipment</i>	1994 ; 1995 ; 1997
EN 50082-1:1997-08	Elektromagnetische Verträglichkeit (EMV) Fachgrundnorm Störfestigkeit Teil 1 <i>Electromagnetic compatibility (EMC) Generic Immunity Standard Part 1</i>	08/1997
EN 61000-4-2 : 1995 + A1 : 1998	EMV Teil 4: Prüf- und Meßverfahren <i>EMC Part 4: Testing and measurement techniques</i>	1995 ; 1998
EN 61000-4-3 : 1996 + A1 : 1998	EMV Teil 4: Prüf- und Meßverfahren <i>EMC Part 4: Testing and measurement techniques</i>	1996 ; 1998
EN 61000-4-4 : 1995	EMV Teil 4: Prüf- und Meßverfahren <i>EMC Part 4: Testing and measurement techniques</i>	1995
EN 61000-4-6 : 1996	EMV Teil 4: Prüf- und Meßverfahren <i>EMC Part 4: Testing and measurement techniques</i>	1996
ENV 50204 : 1995	Störfestigkeit gegen hochfrequente elektromagnetische Felder von digitalen Funktelefonen <i>Radiated electromagnetic field from digital radio telephones - Immunity test</i>	1995

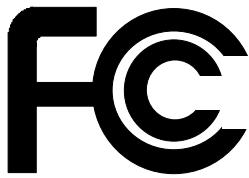
Dieser Erklärung liegt zugrunde: Prüfbericht(e) des EMV-Prüflabors

*This certification is based on: Test report(s) generated by EMI-test laboratory*

Braunschweig, 01. August 2001 / August 01<sup>st</sup>, 2001

Oliver Hoheisel  
Entwicklungsleiter / Engineering Manager

Georg Blinn  
Geschäftsführer / Managing Director  
(Rechtsverbindliche Unterschrift / Legally binding)



# FCC Compliance Statement

## FOR YOUR OWN SAFETY

NOTE: Shielded cables should be used for a composite interface. This is to ensure continued protection against radio frequency interference.

## FCC WARNING STATEMENT

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

- ♦ Increase the separation between the equipment and receiver.
- ♦ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ♦ Consult the dealer or an experienced radio/TV technician for help.

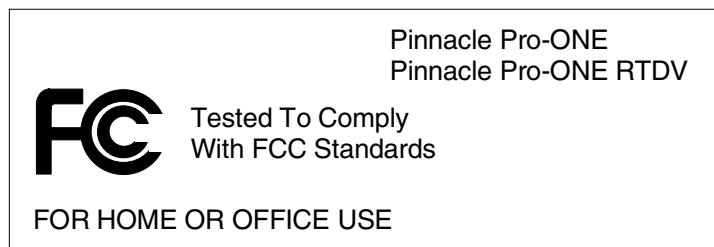
## CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Shielded interface cable must be used in order to comply with the emission limits.

## LABEL WARNING

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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